THE ARCHITECT & BUILDING NEWS

11 NOVEMBER 1954

VOL. 206

NO. 20

ONE SHILLING WEEKLY

- . L.T.E. GARAGE, SHEPHERDS RISH
- CURRENT MEASURED RATES

PUBLISHED IN LONDON SINCE 1854

WHERE SIMPLE OR COMPLICATED SCHEMES OF VENTILATION ARE INSTALLED, AND THE OPERATION IS REQUIRED BY REMOTE CONTROL OR OTHERWISE, AND THE WINDOWS HAVE ANY OF THE FOLLOWING CHARACTERISTICS:—

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- OPENING INWARDS
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- HORIZONTAL CENTRE HUNG
- **BOTTOM HUNG**
- VERTICAL PIVOT HUNG
- SIDE HUNG
- HORIZONTAL SLIDING
- VERTICAL SLIDING



The illustration shows One set of Electrically operated Twin Tension Rod Gear with Counter-Balance Unit operating one continuous opening light, 74' 0'' long x 5' 0'' deep. Note the Spiral Balance Wheel fitted at the end Sprocket.

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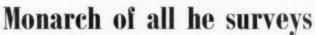
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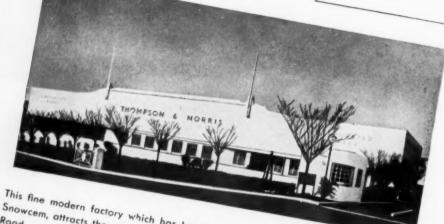
METAL WINDOWS

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FROM THE SNOWCEM FILE:-

Thompson & Norris Factory, Great West Road



This fine modern factory which has been recently extended and painted with white Snowcem, attracts the attention of the thousands who daily travel on the Great West

The old rendering was first removed and the new rendering applied to a key coat of Plaskey, made with Cemprover No. 4, two coats of white Snowcem subsequently being painted on.

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SNOWCEM is available in seven colours: white, cream, deep cream, buff, pink, silver-grey and pale green. CEMPROVER, in 4 grades, is a liquid additive for use with Snowcem, Cement Finishes, Concrete, etc.

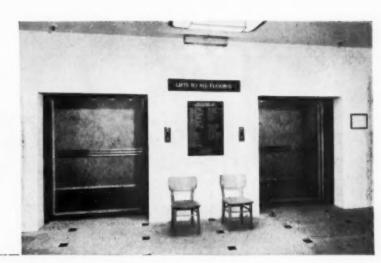
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Lead flashings and weatherings "set the seal" on a good roof

LEAD LASTS

The Council's Technical Information Bureau will gladly help with problems on the use of Lead Sheet and Pipe in building work. Details of the main uses are given in a series of Information Sheets and Bulletins, which can be obtained by applying to the Council.

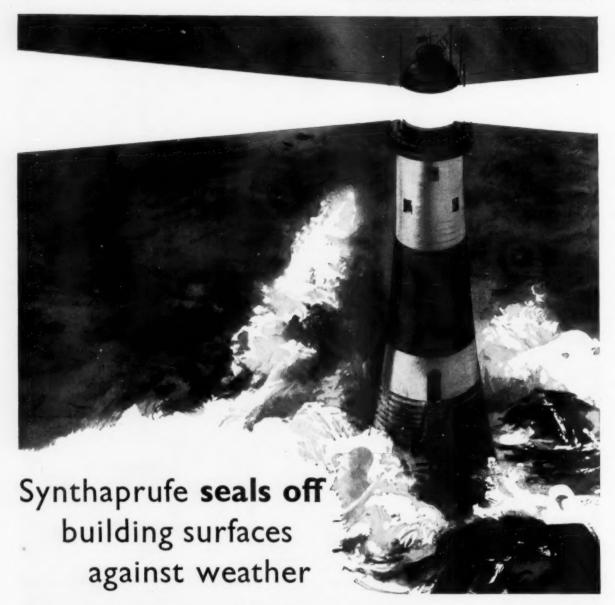
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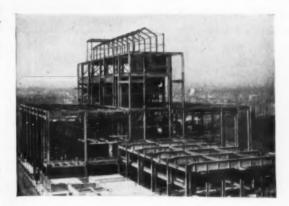
The photograph shows the Power House structure carried out by us to the design of Messrs. Babcock & Wilcox, during erection at the famous Guinness Brewery in Dublin.



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contemporary

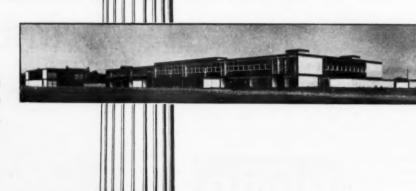
LUXFER manufacture windows In Steel - Bronze - Light Alloy for every form of architecture.

Illustrations:

Hunstanton Secondary Modern School.

Architects

Peter & Alison Smithson, AA.R.I.B.A.
Metal Windows and Doors by Luxfer.





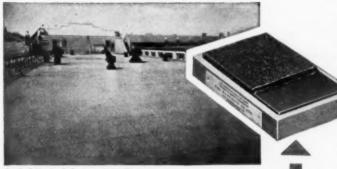


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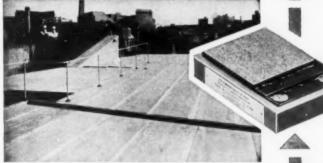
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R. 15

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Architect: Gordon Jeeves, Esq.

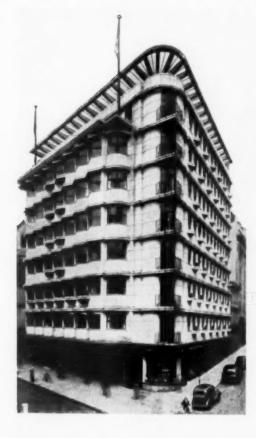
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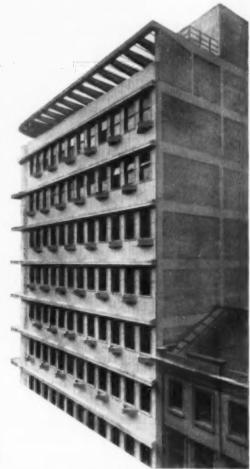
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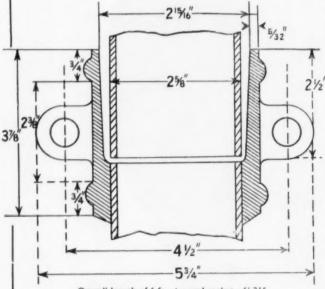
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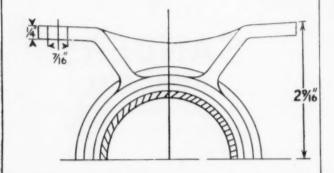
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- (4) DO NOT USE RED LEAD OXIDE PAINTS ON ANY ALUMINIUM ALLOY CASTINGS.
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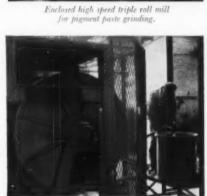
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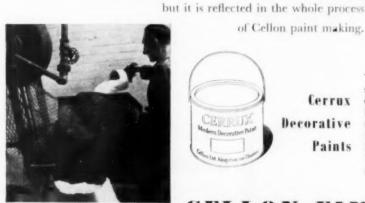


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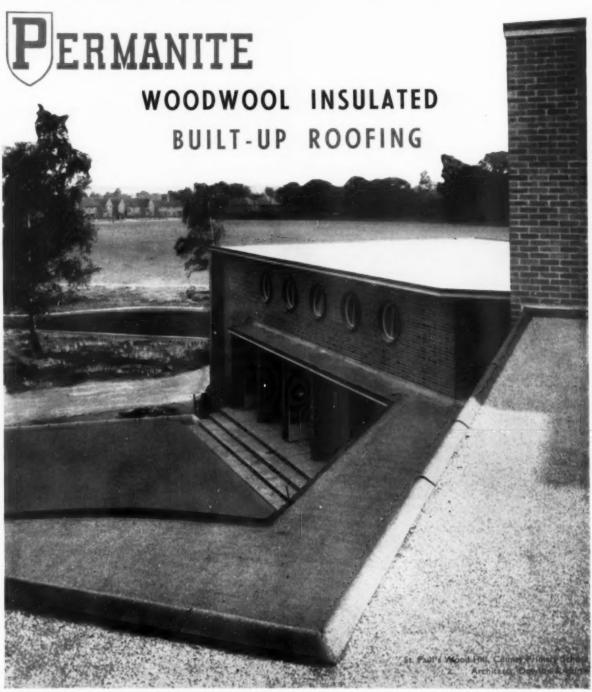
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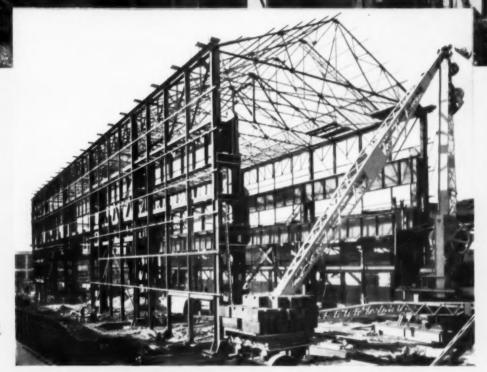


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(Guinness Trust Flats)

Architects: Armstrong & MacManus F.R.I.B.A. Contractors: Humphreys Ltd., London, S.W.7. Bricks supplied through R. Y. Ames Ltd., W.C.2.

For this seven storey block of 161 flats for the Guinness Trust at Loughborough Road, Brixton, Ibstock Chestnut facings are used with sanded finish.

Many architects choose an Ibstock facing for the distinction imparted to brick elevations by attractive colours and varieties that are available.

Facings for Colour

Owing to present demand, supplies of facings of most types are booked for a long time ahead and reservations for 1955/6 are now being made,

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"The Architect and Building News" incorporates the "Architect," founded in 1869, and the "Building News," founded in 1854. The annual subscription, inland and overseas, is £2 15s. Od. post paid: U.S.A. and Canada 89.00

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THE FUTURE OF THE L.B.C.

THE new Minister of Works, Mr. Nigel Birch, in taking over office from Sir David Eccles, took over also the papers on the L.B.C. His promised statement on the subject will be a test of his statesmanship.

It will be recalled that on the publication of the Report of the Royal Commission, the Chairman of the London Builders' Conference, Sir Alfred Hurst, said that it was not likely that the Fair Price Scheme or prior communication of tenders would be revived by the L.B.C. before consultation with M.o.W. and other interested Government departments. The line the new Minister takes will therefore be the one likely to be generally followed. In the meantime the legal as opposed to the ethical or desirable* aspects are worth considering.

The report of the Monopolies and Restrictive Practices Commission on the supply of buildings in the Greater London Area has been produced with a particular aim in the mind of the members of the Commission. This is set out in Section 14 of the 1948 Act and is there said to be the need, consistently with the general economic position of the United Kingdom, to achieve:—

(a) the production, treatment and distribution by the most efficient and economical means of goods of such types and qualities, in such volume and at such prices as will best meet the requirements of home and overseas markets;

(b) the organization of industry and trade in such a way that their efficiency is progressively increased and new enterprise is encouraged;

(c) the fullest use and best distribution of men, materials and industrial capacity in the United Kingdom; and

(d) the development of technical improvements and the expansion of existing markets and the opening up of new markets.

This definition is not exclusive and the real purpose of the Commission may be more concisely defined

as the discovery of practices operating against the public interest. In the case of the London Builders' Conference the Commission makes a definite finding that the schemes which it operated to eliminate unnecessary competition are in fact against the public interest.

Obviously there is a great deal to be said on both sides in any argument of this sort. The spokesmen for the builders' interests naturally dwell on the evils of price cutting, the inevitability of cover prices and the fact that the price rings which already exist in the supply of materials reduce competition for contracts to a matter of rivalry in efficient administration. This last argument appears to be their weakest point. The development of new methods of building and handling materials is unlikely to be fostered by protection against competition. In addition, in building as in all other trades, there are often likely to be two prices for the same work with the same materials, but with a higher guarantee of skill accompanying the higher price. It is perfectly true that in nearly all cases the lowest tender is the one accepted, but there must still be cases in which a firm's experience in a particular type of work is worth the extra cost.

These latter considerations are matters for the architect to decide upon and advise accordingly. The danger of the methods adopted by the London Builders' Conference is that the true facts are not before the architect when he makes his decision. Instead of having before him the results of a competition designed to show what each contractor considers to be the price at which he can do the job, he is faced by a series of doctored figures whose purpose is to make him accept a price fixed by the London Builders' Conference. This price represents an original tender plus a sum which is to be distributed among other tenderers to compensate them for the costs incurred in making a tender, or for the loss of profit on the contract. This arrangement or anything approaching it in pattern is bound to cause resentment among building owners and their

^{*} An article in the "Economist" stated that the R.I.B.A. was seriously split on its attitude to the Conference system.

advisers. Now that licensing has ended the building trade is unlikely to be troubled by the prospect of under employment for some time. A large-scale 'price-cutting war is unlikely to develop if only because of the multiplicity of small and medium sized firms who handle 90 per cent of the entire building trade. A price-cutting war demands close combination and strong generalship and neither of these appears to be in existence.

Bearing these facts in mind it seems likely that the revelations made by the Commission's Report may lead to debate in Parliament and possibly to a demand for legislation to protect the public. The activities of the L.B.C. so far have not infringed the law in any way. If a group of persons combine together to fix prices, whether with the intention to injure or to protect their fellow traders, they commit no criminal offence and there is no action available against them at civil law, however much their activities may injure the public interest. There has been one attempt to diminish this rule of law by statute and its history is of interest in considering what legislation may be suggested to control the activities of the L.B.C.

In 1927 a Private Member's Bill was passed and became law under the title of the Auctions, Bidding Agreements, Act 1927. It was strongly backed by the agricultural interests in Parliament and its purpose was to control the "ringing" of prices against the vendor by dealers at auctions. Its main provision was to make it an offence, punishable with six months' imprisonment or a fine of £100, for any person to take money in exchange for a promise not to bid at any auction. This was intended to cover any case where a group of dealers let one of their number bid on their behalf and afterwards auctioned the goods among themselves and shared the difference in price. It was not intended to apply to persons dealing on a joint account, but only to agreements to buy off competition. The Act went on to provide that if an offence was proved under the Act the sale was to be declared void and the vendor might recover the goods sold. The passage of the Bill through Parliament was not smooth and all the difficulties of enforcing it were pointed out by its opponents. In its final version the proviso was inserted that the consent of either the Attorney General or the Solicitor General must be obtained before any prosecution could be instituted. Research in the records of the Attorney General's Office reveals that only one conviction under the Act has so far been recorded.

It seems probable that any legislation against collusion between contractors will encounter the same difficulties as this Act. The building owner ought to be left to look after his own interests and the path which he may take is clearly indicated in the Report of the Commission. In paragraph 90 of the Report there is set out the certificate of non

collusion which the Ministry of Works adopted in March of 1951. Clearly any builder who signed the certificate would be in breach of his contract if in fact he had taken part in any scheme of price arrangement. It is true that many builders refused to sign this certificate, and it is also true that refusal to sign did not necessarily involve rejection of the tender. On the other hand if every Local Authority were to insist on the signing of this certificate, it might soon become common form throughout the industry. If this were so and if architects generally exercised more care in the selection of those whom they invited to tender, the public would be protected against collusion and the builders against price warfare. Cover prices which do not spring from collusion seem likely to remain so long as builders are justified in thinking that a refusal to tender may prejudice an architect against them in considering whom to invite to tender on any future occasion. The precedent of the National House Builders Registration Council in adopting a self-imposed discipline might well be followed in respect of the collusion clause.

The Monopolies Commission has in fact made no recommendation in the Report which cannot be implemented without recourse to legislation. All that is required is a measure of co-operation between the local authorities, Government departments and other large building owners to defeat a combination which has been held by the Monopolies Commission to be against the public interest.

AND COMMENTS

PORCEL'AIN ENAMEL FOR SHEATHING

One of the great differences between the American building industry and ours is that, when someone invents a new material or a new use for an old one, it is at once rushed into production and used. Here the first reaction is one of suspicion and mistrust. Caution fills the air so that the wretched newcomer is almost stifled at birth. Everyone wants to know whether the B.R.S. has tested it, to know its life and cost and whether it can be easily maintained. No one is willing to be the first to try it out. Quite often no more is heard of it—or very little. I am not saying that architects should not be cautious, for, after all, they spend other people's money; I am merely pointing out the difference.

The particular material I am thinking about is porcelain enamelled sheet which is having considerable success in the U.S. The new Statler Hotel in Hartford, Conn, is covered with blue/green sheets, the new Statler in Dallas, Texas, will be forest green. The new Texas Oil Co.'s 17-storey building in New Orleans is similarly clad. The type of sheeting being used is backed with plaster board, the whole unit being about 2in thick.

This type of material, without the plasterboard, is, I believe, being made by one or two firms in this country but I have yet to hear of a building in which it has been used extensively.

A FAREWELL TO LICENSING

Until what seems a very short time ago the architect's life was almost completely controlled by building licensing. Here I am excluding work where the State was the client. What a bore it was and what a worry. We all must have broken the law in some degree at one time or another. It seemed impossible to avoid doing so. Few will forget the heart-searchings when informed by the contractor that the licence figure had been passed and much still remained to be done. Prison gates appeared in the glummer periods of the night, professional disgrace was just around the corner. But, once the problem was faced and the licensing authorities consulted how reasonable and understanding they usually were. They had a horrid job and on the whole they did it well. Clients, on the other hand, were not always so reasonable. We have all heard, when faced with a firm NO by the licensing officer, how our client's friends-without employing an architect, of course-had no difficulty at all in obtaining a licence for a job costing twice the amount. Many of us, too, have come across the client with less rigid ideas of licensing honesty than our own. We have sometimes had periods of great uneasiness and embarrassment followed by reactions of fury and disgust at the private individual's attitude to the law-and to the contractor who has done what he was told and overspent the licence in doing so. It has been a testing time and we are the wiser for it. Let us remember the licensing officers-£150,000 a year will be saved by their departure-and, while thanking them for doing their unpleasant task so well, let us wish them well in whatever capacity they may be called upon to serve.

TOWARDS TOOUBLE WINDOWS-II

I find that I was wrong when I said that the E.J.M.A. window shown at the Building Centre was not being made. Various members of the Association can supply it, but you must ask E.J.M.A. to arrange an introduction—or so it seems—because for some reason of policy neither the Building Centre nor I can give you the names of the Association's members.

R.I.B.A. CHRISTMAS LECTURES

A cathedral designer talking about how his original idea was born and developed should catch the imagination of the young people who each year attend, in astonishingly large numbers, the R.I.B.A. Christmas lectures for boys and girls. Quite apart from the interest provided by the subject, they can scarcely fail to be fascinated by the enthusiasm and fire of Mr. Basil Spence himself. The lectures will be given on Friday, December 31, 1954, and Monday, January 3, 1955, at the R.I.B.A. at 3 p.m. Tickets from the Secretary, and mark your envelope "Christmas Holiday Lectures."

I have often heard Mr. Spence speak, but never about the cathedral. I am making amends, for by the time you read this I shall have heard him—you will never guess where—at the Royal Automobile Club.

MR. ASLIN'S ADDRESS

In his inaugural address, which appeared in last week's issue, Mr. C. E. Aslin, the new P.R.I.B.A., made quite clear his own views about a number of controversial sub-

jects on the current architectural agenda for the coming session. His remarks were firm and reasonable, and I shall look forward to seeing how he handles the various situations. While I agree with Francis Bacon, whom Mr. Aslin quoted, that every man is a debtor to his profession, I always have an uncomfortable feeling when the R.I.B.A. is referred to as a "learned society." This title is invariably dug up and used when anything very practical or earthy is required to be done by the R.I.B.A.; it is akin to the UNO veto. I would not at all like to see the R.I.B.A. turned into a trade union, but I would rather that than see it covered with cobwebs and academic respectability. There is no need whatever for it to become either of these things, and I hope very much that under Mr. Aslin's guidance the Institute continues the considerable progress which it made under Sir Howard Robertson.

PRE-FABS. PROTEST

One of Mr. Aslin's talking points was pre-fabrication or the factory production of building units. It is quite extraordinary how very prejudiced the lay mind is against this important development in the industry.

The M.o.H.L.G. realized this and changed the name of "pre-fabricated" houses (or those using pre-fab. units) to "non-traditional" and then "new traditional." This has not cured the trouble. The prejudice, as far as I can see, has nothing to do with the houses themselves. It seems to be based on the idea that they are temporary—which they are not—and that they are in every way inferior to good old bricks and mortar. Bradford, where there has been many a housing rumpus in the last few years, appears to be one of the places where the newtraditional house in unpopular. One Councillor is reported as saying: "We saw it during the war. We had Anderson shelters, then Churchill shelters. Now they want us to accept Macmillan's shelters." Next they'll have to bury their heads in the Sandys.

THE GUILDHALL REBUILT *

You will have read of the splendour of the Lord Mayor's banquet in the reconstructed Guildhall, where Sir Giles Scott has replaced the Victorian beams with a flat ceiling, giving a much greater sense of height to the building. I hear that Sir Giles said that he had not enjoyed a job so much for years. The fixing of the floorwarming coils was a tricky business as there is a vaulted crypt below and some of the lead inlaid decorated floor slabs could not be moved. Sir Giles is 74 this year and extraordinarily active; all the same, he was heard to say the other day that he was withdrawing from some of his outside activities to conserve his energies—not, as you might think, to enjoy an honourable retirement or to play golf, but to devote them to the drawing board. Big business architects please note.

GOLD COAST SOCIETY OF ARCHITECTS

This society has been formed, but whether or not it is or will become an allied society of the R.I.B.A. I do not know. Among its objects is the provision of information on local conditions to architects who are proposing to take up appointments in the Gold Coast. The Acting Secretary, from whom this and other information may

★ See pages 604 and 605

be obtained, is Mr. Arthur Lindsay, P.O. Box 1343, Accra, Gold Coast. The following, I should imagine, would qualify as founder members: James Cubitt, Edward Mills, Richard Nickson and E. Maxwell Fry.

THE GUILTY CAGE—CAN GAS ESCAPE?

BWRDD NWY CYMRU, the Wales Gas Board, has done a surprising and very public-spirited thing. It has published and circulated a paper by an architect who thinks, as I do, that gasworks architecture stinks. The title of the paper appears at the head of this paragraph and the architect is Mr. A. J. Gordon, Dipl.Arch., A.R.I.B.A., of Cardiff. In some slight measure Mr. Gordon was preaching to the converted because the Wales Gas Board has already shown that it has some architectural feelings, for Mr. Gordon is their consultant architect. Mr. Gordon's approach was excellent. He pointed out that, although the gas industry might be enlightened and progressive in some things, it sadly lagged behind in its views on the appearance of its structures. He accused the industry of adopting the attitude, to gasworks appearance, of a moribund rather than a developing industry. He thought that this attitude would eventually affect sales and might even threaten the very life of the industry. Mr. Gordon blasted the gas trade papers for their smug appreciations of hideous new installations and quoted from one of them: "The great advance which has taken place in gasworks architecture in recent times . . ." and from another "There is room for much informative propaganda to explain that gasworks can look like modern factories, that retort houses (at a certain cost) can be designed to resemble cathedrals. . . . " Mr. Gordon wants gasworks to look like gasworks and sees no possible reason why they should not, as such, be good to look at. He states the haphazard development of gasworks, their untidiness and, above all, their version of modern architecture as applied in veneer form by the plant manufacturers. In warning the gas men of the dangers of "cathedral architecture," he quotes Robert Furneaux Jordan in support of his argument that a well-designed gasworks could be a handsome affair. He quotes Mark Hartland Thomas in

Mr. Gordon is not ignorant of the difficulties of bringing about the great change which we all want. Prejudice, the present method of tendering for plant, the difficulty of persuading gas engineers that anything is wrong and the need for the recognition of a cc-ordinating designer for all gas installations are all part of the problem. As a beginning, Mr. Gordon would like to see every gasworks tidied up and given a lick of paint.

Mr. Gordon and the Wales Gas Board share the honours for this most appropriate paper. Sir John Maud, the Permanent Secretary to the M.o.F. & P., was present when the paper was read and, as stated in the foreword to the reprint of it, gave encouraging support to its main idea in his address at the Scottish Design Congress.

I have on this page during the past five years made several attacks on gasworks architecture, but have never raised more than a muttered reply from the industry. I seem to remember the words Royal Fine Art Commission . . . consultation . . . and Gas Council . . . occurring here and there. A great industry like gas-making should have an overall design policy. Perhaps Mr. Gordon's paper will not only redden faces in Grosvenor Gardens but also make it quite clear that Mr. Therm is not enough.

R.I.B.A. TOURING EXHIBITIONS

I mentioned the second of this series last week. It is entitled "Your House" and will be on view at Portland Place from November 17-19 inclusive. I still hope that it will be made available to the general public in London.

CANADIAN SALARIES

In the issue dated August 26 I quoted an advertisement for town planners for Canada which appeared in *The Times* of July 12. I also quoted some Canadian Press comment on the salaries offered, which were \$3,600 to \$3,800 per year. I have now heard from an architect in Canada that the average annual wage of a building trade craftsman would be about \$4,500 for a 40-hour week.

My correspondent hopes that this will serve as a warning to anyone contemplating going to Canada. It appears that 14 men were recruited as a result of the advertisement. The agency recruiting them is alleged to have led them to believe that there were other opportunities in Canada.

"I feel," says my correspondent, "that you will easily be persuaded that it is a scandalous affair."

ABNER

NEWS OF THE WEEK

Statement by British Architectural Guild

The British Architectural Guild has kept faith with its original undertaking, given some months ago, not to embarrass the R.I.B.A. in its deliberations and discussions on the means for protecting the interests of Salaried Architects, the Guild having been advised that the R.I.B.A. is engaged in discussions with the A.B.T., which has representation on the Council of that body.

From the outset the British Architectural Guild has been anxious to ensure that there is no split within the ranks of Salaried Architects, and therefore has purposely refrained from any form of active recruitment, in the hope that

discussions could be entered into with the R.I.B.A. and other interested Professional Organizations. The suggestion that discussions should take place was, however, rejected by the R.I.B.A. pending the outcome of their discussions with A.B.T., with the result that time continues to elapse and nothing tangible materializes.

If, as has been reported in the Technical Press, Salaried Architects have for many years felt that they have not been adequately represented, the fact that the A.B.T. has been in existence throughout this period, suggests that the section of the Profession concerned is not desirous of placing its interests in the hands of that organization which, as is well known, is not limited in mem-

bership to Architects. Notwithstanding this fact, it was surprising to see that while the negotiations or discussions between the R.I.B.A. and the A.B.T. were under way, the A.B.T. announced that it had come to an agreement with the Amalgamated Society of Woodworkers and the Amalgamated Union of Building Trades Workers to admit their members as members of A.B.T.

If the A.B.T. is to be democratically controlled, it seems fairly certain that the resulting governing body must be so diluted by the Trades that the Profession of Architecture will have very small representation. Even if the proposed architectural membership of A.B.T. is to be allowed to manage its



The East Block, Templar House. Architect: Frank Scarlett, B.A., F.R.I.B.A. This Hampstead housing scheme on Shoot-up Hill was formally opened by H.R.H. the Princess Royal last Thursday. The opening was presided over by the Mayor, Councillor E. Snowman, J.P., and the Bishop of Willesden blessed the estate towards the end of the proceedings. The contractors were F. Troy & Co., Ltd. This housing scheme will be dealt with more fully in a future issue.

own affairs, the overriding policies of A.B.T. will still be controlled by the larger proportion of non-Architect representatives.

The British Architectural Guild, which was founded for the sole purpose of representing the interests of Salaried Architects should, on that account alone, commend itself to Archi-The question of representation on its Council of Management is, as has already been explained, a matter to be decided by the Membership itself.

In order to bring matters to a head, the Guild therefore suggests that, without delay, an independent Committee should be set up within the Profession to consider the suggestions and claims made by the various organizations who are endeavouring to represent Salaried Architects, with a view to finding a solution which would be acceptable to the Profession as a whole.

The Guild feels that the Journals covering the field of Architecture might, themselves, like to take the initiative in inaugurating an independent Committee on the lines suggested, and so facilitate the issuing and publication of a Report on a matter of moment to the Profession, which seems subject to interminable delay.

COMING EVENTS

Town Planning Institute

November 11 at 6 p.m. Meeting. Installation of Ernest H. Doubleday, O.B.E., F.R.I.C.S., M.I.Mun.E.(M), as President for 1954-55, after which Mr. Doubleday will deliver his Presidential Address. At The Livingstone Hall, Broadway, Westminster, S.W.1.

The Housing Centre Trust

November 16 at 6 p.m. Talk on "Uses of Paints for Housing Work," by L. R. Hickson, Director and Chief Chemist, Hadfields (Merton), Ltd. At 13, Suffolk Street, Haymarket, S.W.1. The Royal Institution of Chartered

November 16 at 6.30 p.m. Annual Dinner. Principal guest and speaker, Nigel Birch, O.B.E., M.P., Minister of Works. At Grosvenor House, Park Lane, W.1.

The Institution of Structural Engineers

November 17 at 6.30 p.m. Talk by D. V. Pike, on "Aluminium Alloy Structures," at the Great Northern Hotel, Leeds.

The Modular Society Ltd
November 17 at 7.30 p.m. Public Meeting, following the Annual General Meeting, at The Royal Society of Arts, John Adam Street, W.C.2.

The Reinforced Concrete Association

November 17 at 6 p.m. Paper on "Composite Construction," by Felix J. Samuely, B.Sc.(Eng.), M.I.C.E., M.I.Struct.E., at 11, Upper Belgrave Street, S.W.1.

Society of Chemical Industry

November 18 at 6 p.m. "The Constitution and Structure of Coal Tar Pitch," by Dr. L. J. Wood, The Coal Tar Research Association, at the Institution of Structural Engineers, 11, Upper Belgrave Street, S.W.1.

Town and Country Planning Association November 17 at 12 noon. Press Conference held by F. J. Osborn, Chairman, Executive, T.C.P.A., and B. J. Collins, Conference Committee, Planning Centre, 28, King Street, Covent Garden, W.C.2.

November 18 and 19. National Conference, at County Hall, Westminster, S.E.1.

Building Teachers' Conference

November 20. Autumn Meeting of the B.T.C. at the School of Building, East Ham Technical College, Arragon Road, E.6.

EXHIBITION

November 10 to 17. Open daily, 12 noon-9 p.m. Building Exhibition. At Brooklyn Farm Technical College, Great Barr, Birmingham.

Parliament

Full Freedom

The Minister of Works, announcing the Government's decision to bring to an end the system of building licences, said it was intended to lay before Parliament on Nov. 10 an Order in Council proposing the revocation of

Defence Regulation 56A.

Supplies of building materials, Mr. Birch said, had steadily improved during the past three years, and productivity in the building and civil engineering industries had risen. Licences were now being issued freely in nearly all areas, and neither the cost of administering this control nor the inconvenience caused to architects and contractors could any longer

Mr. Harmar Nicholls welcomed this final step to ending austerity, and asked if the Minister could give an assurance that the production of materials over the next 12 months would increase sufficiently to meet the extra building that would undoubtedly follow. Mr. Birch said that only a small increase in building was expected next year, for the simple reason that licences had been freely granted or promised already for everything that was ready. The record over the years that the Government had been in office showed that the demand for building materials had created the supply. They expected that next year there would be at least 100 million more bricks available, and 500,000 tons more cement. The administrative saving to the Department from the ending of licensing would be about £150,000, but there would also be savings to local authorities and in the time of architects and contractors.

Some Labour members were critical of the effect of the decision on housing and school building, and Mr. Birch replied that the requirements of these programmes were taken into account when the matter was studied. There had been a great increase of productivity in the building industry and it was expected that there would be an extra capacity of £100 millions next

year. (Nov. 2.)

Temple Site Value

Mr. Stokes asked the Minister of Works what estimate he had made of the cost of leaving the Temple of Mithras on the Bucklersbury House site in situ before deciding not to purchase it for the nation, and what estimate he made of the value of the 1,200 sq ft it occupied. Mr. Birch said the estimate of £500,000 for the cost of preservation took account of structural work and compensation for delay and loss of accommodation. The site was being developed as a whole, and it would be unrealistic to make a valuation of the part occupied by the temple. Mr. Stokes quoted a newspaper report that the 1,200 sq ft was worth £300,000 -which would mean that an acre of land in that area was worth about £10 millions. Mr. Birch dismissed that assessment of the site value was exaggerated. The main point, he said, was that if the owners had had to alter all the designs and bridge over the temple there would have been not only long delay but the loss of a great deal of accommodation. (Nov. 2.)

Ministry Contracts

Mrs. Lena Jeger asked the Minister of Works what was the total value of contracts placed by his department with tenderers who had refused to sign the certificate of non-collusion since the introduction of the certificate; and what proportion this represented of the department's total contracts. Mr. Birch said that in the time available he had not been able to get out full figures, but during the period January 1, 1953, to September 30, 1954, the value of contracts placed with firms who had not signed the declaration was some £4,175,000. This was about 10 per cent of the total value of works contracts placed by the department during the same period.

Answering other questions about the Monopoly Commission's report on the practices of the London Builders' Conference, he asked M.P.s to await the statement that he had promised to make as soon as he could. (Nov. 2.)

Sand and Gravel Prospects

Mr. Dodds asked the Minister of Works what was the estimated available sand and gravel deposits that could be worked; and how long they would provide for the needs of the building industry. Mr. Birch informed him that no estimate could be made of the total reserves of sand and gravel available, but the reports of the Advisory Committee on sand and gravel showed that in certain areas. notably the Metropolitan area, reserves that could be worked without damage to other interests were likely to be exhausted in less than 50 years. Provision could be made in development plans, which were subject to fiveyearly revision, for the progressive allocation of land for the working of sand and gravel.

Mr. Dodds also asked what action had been taken to safeguard the future supplies of sand and gravel for the building industry. Mr. Birch stated that the reports of the advisory committee appointed in June, 1946, were brought to the attention of local planning authorities by the Minister of Housing and Local Government. With due regard for other interests, the committee had recommended certain areas in each locality for sand and gravel working. The committee be-lieved that the areas recommended would provide reserves for the next 50

years. (Nov. 1.)

Delayed Payments Report

Sir Alfred Bossom asked the Minister of Works if he was aware that the method often followed by Government departments of delaying the final and other payments for new building work for a considerable time, added substantially to the cost involved; and if he would consider introducing an arrangement such as was used in the United States of America, where the final payment was generally made within 30 days and a bond accepted to take care of any contingencies which might arise. Mr. Birch stated that the whole question of payments on building contracts, including retention money and the alternative of bonds or guarantees, had recently been considered by an interdepartmental working party. The report would be published soon. (Nov. 5.)

Omnibus Authority

Sir Alfred Bossom asked the Minister of Works if he would consult with his colleagues to save expense and time now involved in any building undertaking, by inspiring a plan so that all the necessary permits, which now took anything up to a year to obtain, could be provided in a month to six weeks, as was done in many other countries, and all from one authorizing body. Mr. Birch said he hoped that the abolition of licensing would be a contribution to the end Sir Alfred Bossom had in mind. agreed that it was desirable that the procedure for obtaining the permits to build should be as simple and speedy as possible, but he did not think it would be practicable to have one authorizing body to cover all the interests involved. (Nov. 5.)

Improvement Grants

Mr. Sandys, Minister of Housing and Local Government, informed Mr. Chetwynd that in the five years between the passing of the 1949 Housing Act and the Housing Repairs and Rents Act this summer, improvement grants were approved for 11,873 houses. In the two months between the passing of the 1954 Act and the end of September grants were approved for 1,626 houses. (Nov. 2.)

The Public Works Exhibition

The Public Works and Municipal Services Congress and Exhibition for 1954 will be held at Olympia, London, from November 15 to 20. The Rt. Hon. Nigel Birch, O.B.E., M.P., Minister of Works, will perform the

opening ceremony.

The Exhibition, which is the most comprehensive of its kind, will provide a complete survey of the equipment required by municipal and local government services, both at home and overseas. It is estimated that a sum of nearly a thousand million pounds is spent annually on maintaining the essential services in Great Britain alone, a fact which makes this biennial exhibition of vital importance to every citizen.

Representatives of some 60 overseas countries are expected to attend the Congress, many of whom will be potential buyers of the wide range of equipment, machinery and plant.

THE Birmingham and Five Counties Architectural Association must be one of the largest Allied Societies in the country. Its orbit comprises the fruit-growing country of Herefordshire and the Welsh border hills of Salop, and it sits astride the vast conurbation of the industrial Midlands, containing the second city in England. It has always been a lively Society and like that other A.A., the "B.A.A." founded a School of Archi-

tecture for its members many years ago,

e w s

now known as the "Birmingham School of Architecture."

During this October the new President was inaugurated, Stansfeld T. Walker, M.A., A.A.Dipl., F.R.I.B.A., one of those architects whose work belongs to the most sincere efforts of our time. The A. & B. N. recently published "Pithead Baths, Griff 4 Colliery" and "Lyndon Green Primary School," by S. T. Walker and M. Foreman.*

Good architects are usually lone rangers and not given to corporate action; often the better they are the more they are inclined to leave architectural "politics" to the "busybodies." And yet, a Society of architects can do so much beyond annual dinners, summer outings and golf matches, by shaping the unstable trends in contemporary—in the time sense—architecture. Some of these possibilities are implied in the task the new President has set himself. Therefore his Presidential address is clearly of significance beyond the borders of the "Five

Counties Mr. Walker opened by stressing that he regarded his office as a "trust which carries with it a measure of responsi-bility." Portland Place may ordain the rules, but it is the Allied Society who carries these out. The B.A.A. suffers from lack of a suitable centre which would give a permanent home to a variety of activities. To work for this would be a major task, requiring probably several more successive presidents "To achieve fullness of to achieve. purpose no matter in what department of life, it was essential to be part of a The sudden provicommunity. sion of beautiful association premises, a "pup of Portland Place," would not automatically make a healthy association, but it would speed up the prohowever; a lot must be done first to deserve these by building up an "association sense." Mr. Walker gave examples of what could be done and discussions about such things as the 'handling of or being handled by the clients" or office management were among the suggestions. Also, for in-stance, drawings could be discussed over a mug of beer. Then there were all the various classes of members, to begin with, the students who may be uncertain what it was all about and were dreaming of erecting one day their million pound project.

"I do not want to draw too fine a

* June 3, 1954

distinction," the President continued, "between the private and the official architect, in fact, the opposite. I want to suggest that they have much in common and should recognize this by working in as close co-operation as possible. . . . Apart from the approach to architectural problems there is a danger that we may come to think that we are different, which, of course, we are not and must never be . . . we must think as architects for architecture."

Those who teach may have the most important part to play, they guided the student in his architectural path and met the novice in his most formative years. "If education means anything, surely it should prepare him for the day when the student has to mingle with

his fellow men!"

r o m

Mr. Walker then asked permission to make a few observations on architec-tural trends as he saw them, "being somewhere between the old guard and the young." "My generation was brought up in an atmosphere of Edwardian security and William Morris wallpapers still adorned the walls of our houses. The 1914-18 war curious enough only partially shattered the illusions. This may have been because the war took such a toll of youth that the affairs of the country continued to be influenced by the old order. Private clients still had some money and some had more than they started with. The Schools were fumbling in an uncertain faith-our girl friends humbled themselves in the cloche hat-we had the 1925 Paris exhibition and then the slump.

Comparatively that brings us up to the present day in terms of the architect who has lately qualified. Happily, this time not so great a toll was taken of the warriors, many of them returned to take their part in the delayed developments of art and architecture. There has so far been no slump, the South Bank Exhibition has left its mark and girls don't wear hats. Money has however been controlled and mainly spent by the Government, which has been the best possible fillip to socalled contemporary architecture. There is a lack of responsibility enjoyed by the impersonal make-up of a sponsoring department that tends to give a freer hand to genius than the more naturally pusillanimous private building owner who is chancing his capital.

The present generation of younger men is therefore not hidebound by the influence of its immediate elders and enormous opportunities lie ahead for developments which previously had been stultified by circumstances.

Architecture is so much dependent on environment and, whereas in days gone by a tradition would die hard and each successive phase would show signs of the influence of its predecessor, we now live in an age when, in addition to what the Press can give us, we can see for ourselves what is going on on the other side of the world at the ex-

penditure of negligible travelling time.
These world-wide influences can make themselves felt in as little time as a master mason could pass on a change of fashion from Chipping Campden to Stow-in-the-Wold in the Middle Ages.

Stow-in-the-Wold in the Middle Ages... The painstaking detail of the past was geared to the craftsman. He is now virtually relegated to special occasions and has a diminishing place in build-

ings of this day.

Better to admit it and plan accordingly. There is nothing so dead as a dead passion, nor is there any architecture so forlorn as one floundering on a false hypothesis. . . It was not so very long ago that an architect wishing to visit a job in, say, a neighbouring county, would set off by train, be met at the station in time to change for dinner and have his precious plans turned inside out over the port—next day spend a happy morning with the builder and his merry men—to return by the same route to read his architectural press in front of a cosy fire in the evening.

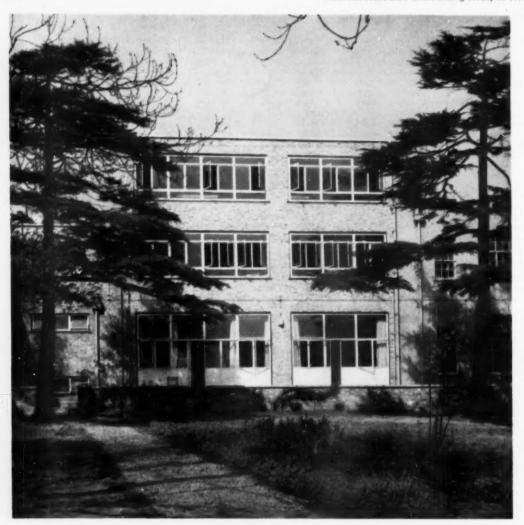
He got 5 per cent for his trouble and with taxation at 5d in the pound probably forgot, if ever it occurred to him to do so, to charge his expenses to

petty cash,

Mr. Walker thought that this mentality had to lead to a different kind of Also, our earlier friend architecture. had a limited assortment of materials to play with, but he knew all about His contemporary successor them! has to try to keep abreast of the hundreds of safe and not so safe proprietary alternatives with which to conand clad his buildings, which will still have to be weatherproof, functional and good to behold. The modern counterpart of his more tranquil forebear may feel that these exciting materials and scientific methods offer vast opportunities which must be grasped to the exclusion of considerations of the past and that it would be dishonest to do otherwise. To be logical he must be satisfied that his "contemporary" building is not out of place in an ancient University town any more than a Georgian house was una timber-framed happy alongside neighbour in the 18th century.

Mr. Walker concluded by returning to more domestic matters among which the creation of a home for the Society figured prominently. Surrounded by a Society who, like most, still contains a majority of members of the "older school," the President's words reflect his own honest searching in which we all take part and a lesson to those who still find it difficult to adjust themselves to the truly contemporary, i.e., to the demands of our age of which architecture is, after all, only one of many forms of expression, where the art of building is only one of the many endeavours to create a harmonious background to life as a whole and less the expression of an individual's whim or

ancy.



PHILIPPA FAWCETT TRAINING COLLEGE. for the London County Council

architects: POULTON & FREEMAN, F.F.R.I.B.A.

assistant-in-charge: Peter Stephens

THE buildings in Leigham Court Road, Streatham, which have recently been converted into the Philippa Fawcett Teachers' Training College for the London County Council were before the war in use as a Rudolf Steiner School. During the war the grounds were in use as a barrage balloon site and the buildings sustained a considerable amount of war damage.

In order to convert the existing buildings practically the whole of the East and West houses in the block had to be gutted on account of the repair of war damage on the one hand, and the eradication of dry rot on the other. Two other factors which also influenced the amount of demolition necessary were the increase in both the extent of the accommodation and the size of rooms and also the need to introduce a measure of steel framing in order to increase the floor loading. The Assembly Hall and Dining Room, situated in the central portion of the block were retained much as before, but with the exception of repair work and the making of entrances from the South terrace.

The Gymnasium Block is a completely new building. This contains a gymnasium, changing rooms, music practice rooms and a number of tutorial rooms. It was decided to combine the various teaching rooms with the gymnasium in one single building rather than in two buildings on account of the restricted site and the

necessity to maintain games pitches within the boundaries.

The construction of this block centres round a reinforced concrete frame with Uxbridge Flint brick infilling. The windows along the West side of the gymnasium extend from floor to ceiling and crossventilation is obtained from the windows along the East wall of the gallery.

This is the first teachers' training college to be

undertaken by the London County Council since the war.

The special furniture and fittings were designed by the Architects in conjunction with the L.C.C. Supplies Department and the College staff. Curtains and floor coverings were supplied by the L.C.C. Supplies Department and were chosen by the Architects and College staff. Gymnasium equipment was supplied by the L.C.C. Supplies Department (Olympic Ltd.)

I. DINING ROOM

A view of the dining rooms showing the service counter and food lift from the kitchen below. The doorway on the left leads to the lower end of the Assembly Hall. On the right of the pair of doors from the East House is a large notice board. The colour scheme of the dining room is pastel green walls and terra cotta lino floor.

3. PRINCIPAL'S STUDY

The built-in electric fire is incorporated in a continuous range of cupboards. The walls are painted pale grey. The floor is ultra hardboard and grey carpet. All woodwork is pure white. Furnishing in cherry red and yellow.

2. STUDENTS' COMMON ROOM

View looking in the direction of the terrace and garden. The pair of glazed doors on the left lead to an extension of the Common Room which is also used for lecture purposes. The colour scheme generally is broken white. The floor is covered with ultra hardboard in 4ft squares treated with a special sealer and polished.

4. COLLEGE LIBRARY

The library covers the entire second floor of the East House. The woodwork for library fittings is painted birch grey with off-white for other woodwork, excepting the doors which are terra cotta. Walls are broken white and floor grey lino.







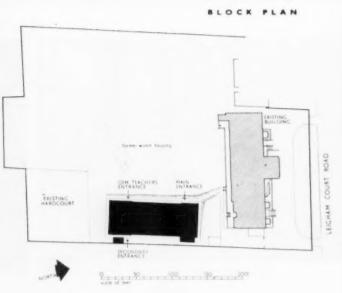


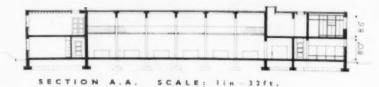


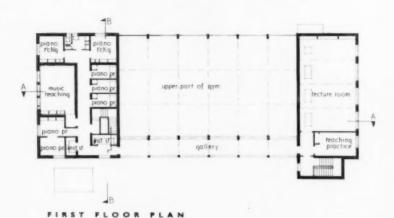
Philippa Fawcett
Teachers' Training College

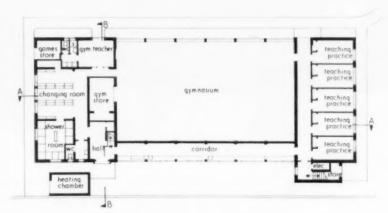
A view of the main entrance and West side of the gymnasium block. The view below shows access to upper and lower changing floors from the main lavatory of the College.











GROUND FLOOR PLAN

Quantity Surveyors: E. R. Babbs & Sons.

Main College

General Contractors : Truett & Steel Ltd.

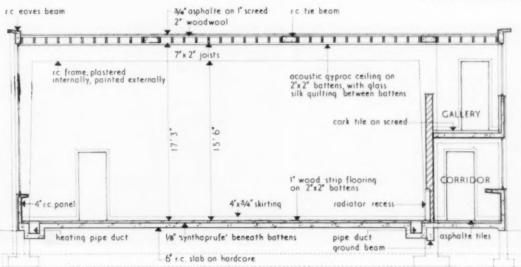
Bitieminous Felt Roofings: Ruberoid Co., Ltd. Electrical Installation: Holliday, Hall & Stinson. Gas Installation: South Bastern Gas Board. Hardboard Flooring: Sundeala Board Co., Ltd. Heating and Hot Water Installation: Rosser and Russell, Ltd. Iron Ballistrading: S. W. Farmer & Son, Ltd. Ironmongery: Comyn Ching & Co. (London), Ltd. Metal Windows: John Thompson Beacon) Windows, Ltd. Paints: I.C.E. Paints Division. Plumbing: Dent and Hellyer, Ltd. R. Concrete Construction: Limpus & Son, Ltd. (Myko). Service Lift: Hammond & Champness. Special Electrical Fittings: Courtney Pope (Electrical), Ltd., Primavers (London), Ltd., Merchant Adventurers, Ltd. Stoge Lighting: Strand Electric & Engineering Co., Ltd. Stone Restoration: Reparations-Dreylus, Ltd. Structural Steelmork: A. W. Parrish & Son. Tarmacadam Pavings: Wainwright Paving and Contracting Co., Ltd. Terrazo Partitions, Cills and Flooring: Arcanum Terrazzo and Stone Co., Ltd. Terrazo Partitions, Cills and Flooring: Arcanum Terrazzo and Stone Co., Ltd. Terrazo Partitions, Cills and Flooring: Arcanum Terrazzo and Stone Co., Ltd. Terrazo Partitions, Cills and Flooring: Arcanum Terrazzo and Stone Co., Ltd. Vermiculite Roof Screeds: Meta-Mica, Ltd.

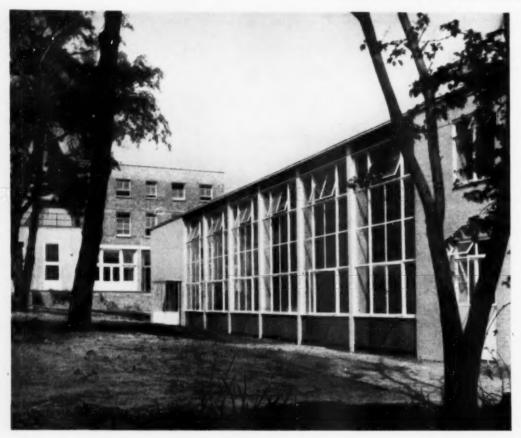
Gymnosium Block General Contractors :

Bridge Walker Ltd.

GYMNASIUM BLOCK

SECTION. SCALE: lin - Bfc





Gymnasium block from South-West

Philippa Fawcett Teachers' Training College

Architects: POULTON & FREEMAN

Gymnasium



· Changing room





The staircase link on the North elevation.



North elevation.

POLICE HOUSING AT RICHMOND, SURREY

chief architect & surveyor:
J. INNES ELLIOTT, B.Arch., A.R.I.B.A.

deputy chief architect & surveyor: C. R. FOWKES, A.R.I.B.A., A.M.T.P.I

senior architect in charge: S. J. HANCHET, A.R.I.B.A.

THIS block of flats, erected for the Receiver for the Metropolitan Police District, New Scotland Yard, is part of a programme to provide 5,000 new married quarters in the District to be occupied by policemen and their families.

The site is on Friars Stile Road at the top of Richmond Hill. It has additional frontages on Marlborough Road and Park Road. There is a slight fall to the N.E. but generally levels had no effect on the plan or siting of block.

Originally the site was occupied by 10 houses with basements which were pulled down in 1939 with the object of redevelopment, but work was held up due to the war and no start was made.

Development

The general development in the area consisted of large carly Victorian houses. Subsequently shops have been added on Friars Stile Road, and the present tendency in the area is development with blocks of flats.

Close liaison existed in the design stage with the Richmond Borough Council who have in mind a possible road realignment in front of the site. The scheme was designed to respect the surrounding property, and was to the maximum density agreed with the Local Authority.

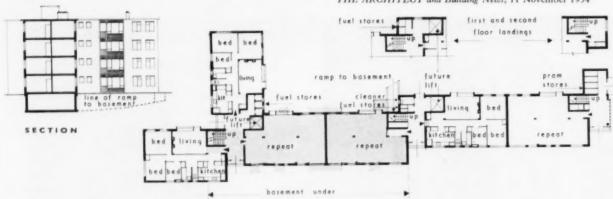
A service road was provided from Park Road to the rear of the block to keep traffic away from the busy main road.

Accommodation

The scheme provides a total of 24 quarters, each quarter having three bedrooms, living-room, kitchen, bathroom and separate W.C. Flat areas and room sizes are designed to the requirements of the Ministry of Housing and Local Government standards, as laid down in the Housing Manual. In addition each unit is provided with a uniform cupboard planned off the hall to accommodate the policeman's kit.

The flats are arranged with direct access from internal staircases. Provision has been made for the future installation of lifts, but as an economy measure these have not been installed.

Advantage has been taken of some of the original basements to provide a large basement in which is



PLANS, Scale: lin 40ft.

Police Flats at Richmond, Surrey

accommodated a hobbies room and most of the pram shelters. Communal drying areas have been provided in the garden.

Construction

The basement is reinforced concrete, remainder reinforced concrete sub frame on columns, beams, and suspended hollow tile floors.

External walls of cavity construction comprising facing bricks to the outer skin and cellular clinker concrete inner skin and all partitions.

The casement windows are of timber in E.J.M.A. sections.

The roof is hollow tile construction, with vermiculite screed for insulation purposes and asphalt.

Finishes

The facing bricks externally are Leicester Tawny machine-made wirecut facing. The panel infilling under the living-room windows is "Poilite" fluted asbestos panels painted with "Inertol" enamel paint. Fair faced concrete construction is painted with

architect: C. A. Legerton assistant architect: J. A. L. Neyroud, Dip.Arch. "Silexene" stone paint. The obscured glazing to the entrance hall is in broad reeded glass.

The walls internally are generally plastered and distempered, the staircase halls are finished with cement glaze, and the entrance halls with decorated plaster. Ceilings are distempered.

The living-room floor is covered with cork tiles, the kitchen, bathroom and W.C. have quarry tiles and the bedrooms and hall have thermoplastic tiles. In the main entrance terrazzo tiles are used with tinted granolithic margins, the staircases are finished with tinted granolithic with non-slip inserts.

Services

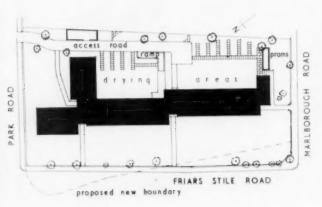
All plumbing, including rain-water pipes, is housed in internal ducts.

Hot water is provided by under-draining-board type of electric water storage heaters. Space heating by electric panel fires in bedrooms and open fires fitted with throated flue block, and slow combustion grates in the living-room.

consulting engineers: Deane and Mason quantity surveyors: F. J. Meekins and Partners



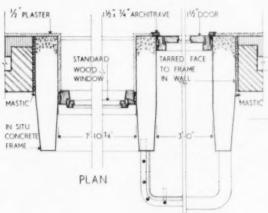
West Entrance



BLOCK PLAN



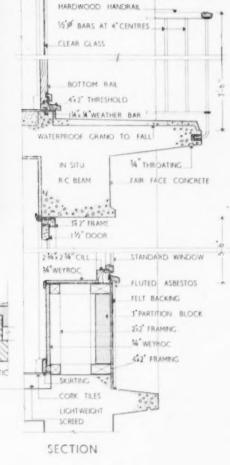
The garden elevations from the South. Note the ramp leading down to the basement pram shelters and hobbies room.



Scale:

general contractor: Leslie & Co., Ltd.

Artificial Stone: Enfield Stone Co., Ltd. Benches: Parry & Sons, Ltd. Balustrades—Metal: Kingsmill Metal Co., Ltd. Bricks—Facing: Chan. Arnold, Ltd. Cement Glaze Finish: Cement Glaze, Ltd. Cork Tiles: The Armstrong Cork Co., Ltd. Electrical Installation: Norwest Services, Ltd. Gates—Metal: Supreme Fencing, Ltd. Ironmongery: Taylor Pearse, Supreme Fencing, Ltd. Ironmongery: Taylor Pearse, Ltd. Kitchen Fittings: Jayanbee, Ltd. Lettering: The Lettering Centre. Metal Clothes Posts: Hill & Smith, Ltd. Plumbing: Stitson White & Co., Ltd. Precast Roof: Girlingstone, Ltd. Sanitary Fittings: Stitson Sanitary Fittings, Ltd. Terrazzo Tiles: Camden Tile & Mosaic Co., Ltd. Thermoplastic Tiles: Marley Tile Co., Ltd. Turfing: Grassphalte, Ltd.



DETAIL OF REINFORCED CONCRETE FRAME TO LIVING-ROOM WINDOWS



Entrance to servicing area

SHEPHERDS BUSH GARAGE

architects: ADIE, BUTTON & Partners, F.F.R.I.B.A., in association with THOMAS BILBOW, F.R.I.B.A., architect to London Transport Executive consulting engineer: A. E. BEER, A.C.G.I., M.I.Struct.E., M.Cons.E.

THIS garage replaces a 50-bus garage built in 1906, which occupied part of the site. The new building will accommodate 123 buses and provision has been made in its construction for a future extension to house another 25 buses.

The layout conforms to the general principles of London Transport's post-war garage design and is in three main groups:—

1. Parking Area, of approximately 45,300 sq ft; 2. Servicing Area, of 6,700 sq ft, and 3. Office and Canteen Block, a separate two-storeyed structure.

Construction

The construction is executed in reinforced concrete throughout, with brick panel external walls carried on reinforced concrete ground beams. The roof over the parking area consists essentially of hollow reinforced concrete box girders running East and West from the Wells Road entrance to the East end of the garage, a distance of 291ft.

These girders are built at 33ft centres and have a span of 52ft. They have a depth of 8ft and taper in width from 8ft at the top to 3ft at the bottom. The sides are 6in thick and the bottom flanges are 12in thick. Access to box girders is provided through the top flange, which forms part of the roof deck. The box girders accommodate the service pipes, electric conduits and rainwater pipes and have their own system of electric lighting. There is sufficient headroom for maintenance personnel to walk comfortably. Pitched decklights are provided between adjacent edges of the flanges of the box girders, a width of 17ft, and these

consist of patent glazing bars pitched to a ridge piece carried on trusses at intervals. The decklights over the central portion of the parking area have an uninterrupted length of 272ft and provide exceptionally good lighting conditions.

These box girders are carried on a series of transverse members which take the form of three bowstring girders, one of 132ft span and two of 99ft. The main interest in the design lies in the ingenious interpenetration of the box girders and the bowstrings.

The 132ft-span bowstring girder has a rise of 26ft 4in and supports half the weight of the four 34ft 6in-long box girders together with half the reaction of four 108ft long box girders on its West side giving four point loads of 128 tons each. The horizontal thrust at the haunches is 437 tons and the vertical load at each support is 357 tons. The arch rib at the crown is 5ft wide by 2ft 3in deep which increases to a depth of 3ft at the springing.

Where box girders take a seating on the "I"-beam and

Where box girders take a seating on the "I"-beam and on the bowstring girders the contact surfaces have been separated by leadcore sheeting immediately at the bearing and by thick building paper at the sides of the hangers. Individual spans are separated by gaps, which are filled with "Flexcell" to allow longitudinal movement.

The roof structure in general was designed for a superimposed loading of 30lb per foot super and the stresses were in accordance with the L.C.C. byelaws. Roof coverings throughout were of asphalt. Heavy bituminous felt was used for the flashings to the inclined and vertical mem-





LAYOUT PLAN Scale: lin 96ft

KEY

- I. FOLDING GATES

 2. RUNNING SHIFT AND ROTA
 PITS
- 3. STORES
- 4. SAND
- S. PAINTERS' SHOP
- 6. COACH-MAKER
- 7. SALVAGE
- B. SALT
- 9. ASSISTANT FOREMAN
- IO. ELECTRICIAN
- II. ACCUMULATOR ROOM
- 12. INSIDE STAFF LAVATORIES
- 13. LOCKER ROOM
- 14. BLINDS, BILLS AND ADVERTS
- IS. WASHERS' DRYING ROOM, BOILER ROOM BELOW
- 16. FUEL BUNKERS
- 17. MACHINE ROOM
- IS. NIGHT FOREMAN
- 19. FIRST-AID ROOM
- 20. GARAGE ATTENDANT 21. GARAGE ENGINEER
- 22. OPEN AREA
- 23. FUEL OIL STORE 24. TICKETSTORE
- 25. TRAFFIC AND TICKET OFFICE 26. CONDUCTORS' ROOM
- 27. DISTRICT SUPERINTENDENT
- 28. NOTICE ROOM
- 29. CYCLE STORE
- 30. TRANSFORMER CHAMBER
- 31. KITCHEN
- 32. CANTEEN
- 33. RECREATION ROOM 34. STAFF ROOMS

Parking area





Two views of a bow-string truss.



General Contractor: Charles Booth & Son

General Contractor: Charles Booth & Son
Ash Hoiss: Acrow, Ltd. Asphals Work to Flat Roof and Gutters:
Neuchatel Co., Ltd. Barrier Radi in Canteen: GB.C. Precision Products.
Concrete Lamp Standards: Concrete Utilities, Ltd. Cork Insulation, Flat
Roof: Duttons. Electrical Insulation: Archibald Saville. Facing Bricks
Throughout: Hall & Co. Fuel Storage Tanks: John Bellamy, Ltd. Fume
Exhaust Pit Couers: Broads, Ltd. Heating and Hot Water Supply: Nortis
Warming Co. Joinery, Office Block, Union Counter, Handrails and Notice
Cases, Counter in Conductors' Room: D. Burkle & Son, Ltd. Lawatory
Partitions and Floor and Wall Tiling: British Doloment (Jaconello, Ltd.).
Masonry Work: South Western Stone Co. Paints and Distempers: I.C.I.,
Ltd. Precast Floors: Triad Floors, Ltd. Roller Bearings to Boustring
Girder: Brown, Lennox & Co., Ltd. Roof Glazing to Garage, Insernal and
External Windows, Lamtern Lights, Bronze Grilles and FAI's, Canteen
Servery Screen Frame, Flush Lights over Service Counter, Fuel
Bunker Doors, Windows and Monitors, Office Block: Mellowes & Co., Ltd.
Sanitary Fittings: W. N. Froy, Ltd. Sprinkler System; Roller Shutter to
Fuel Tank Area, Fire Hydrant Service, Steel Shutter to Canteen Service
Counter: Mather & Platt, Ltd. Staircase Balustrades: George Wright, Ltd.
Steel Columns to Office Block, Structural Steel for Bus Washing Machines,
Steel Items, S.W. Corner: W. H. Armfield, Ltd. Suspended Ceilings: Campbell Denis, Ltd. Vacuum Installation: British Vacuum Co., Ltd.

Shepherds Bush Garage

bers of the bowstring girders. These were reinforced where necessary and expansion rolls were formed in the felt to allow movement due to temperature changes.

The external panel walls of the garage and the walls of the ancillary buildings are faced externally with sand-faced facing bricks, and internally with cream sand-lime bricks. Internal concrete surfaces received an application of cream Snowcem. A 5ft 6in-high cement-rendered dado runs around the walls of the parking area and is painted with a synthetic gloss enamel. Wherever possible, fire fighting equipment, etc., has been accommodated in recesses.

The office and canteen block is a reinforced concreteframed structure of two storeys. The frames of the main building have a span of 46ft and are at 10ft 41in centres. The exposed members of this building were cast in a special 1:11:3 mix of crushed Darley Dale stone, Leighton Buzzard sand and white Portland cement. On removal of the shuttering, the surfaces were polished.

On the North and South elevations the glazing extends completely from column to column and the panel walls forming the vertical sub-divisions between the glazing are faced with 3in-thick slabs of Portland stone.

The finishings in the office and canteen block include in situ terrazzo stairs and terrazzo tile floors. The principal rooms have a 7ft-high tiled dado and the recreation room has an in situ terrazzo dado of the same height with vertical white Vee joints at 2ft centres. The building is centrally heated with all flow and return pipes concealed in floor ducts, and in the kitchen and canteen there is an extract system of ventilation.

The consulting electrical engineers were Ronald Edgar and Partners and the heating and ventilating equipment was designed and installed under the supervision of H. Carter, A.M.I.C.E., M.I.Struct.E., New Works Engineer, London Transport Executive.

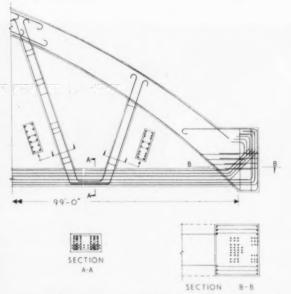


Diagram showing main reinforcement. Except at the ends, the tie-members of the bowstring consist of twin 21 inx14in members each containing eighteen I in diameter bars. The twin ties are united at the ends of the girder to provide accommodation for twelve additional Iiin diameter bars required for anchorage purposes. The main bars were welded in fifty-feet lengths, using double-V butt weld joints.

LIBRARY NOTES

Hospital Planning Requirements

By Guy Aldis, A.R.I.B.A., A.A. Dipl. Pitman, London. Price £4 5s.

HE dust-cover of this book suggests that although written primarily for the guidance of architects it is aimed at encouraging that essential liaison between architects, medical and nursing staff, members and personnel of hospital boards, boards of governors, hospital management committees and other administrative bodies who participate in the programmes for the construction of new, or improvement of hospital buildings. existing. volume contains an enormous amount of extremely helpful information including no fewer than 400 diagrams. However to give information and then quite often leave the reader to decide what is the right solution to a problem is not always helpful. The author says in his preface that his object is an attempt to assist the architect by sup-plying a comprehensive "menu" from which his client may make his selection, whereupon he, the architect, may then take on the rôle of chêf de cuisine in the knowledge that he will have sufficient recipes, condiments and spices to ensure a palatable result. More definite indications of what the author believes to be correct solutions, based on his own considerable experience, for each of the problems reviewed would probably make for an even better understanding between all the parties The author seems a little cited above. frightened to express firm views. One wonders if it is because he is afraid to disagree with certain of those around him, since he is now a hospital official. All of us who have had hospital experience appreciate fully that there are differences of opinion among the medical profession, and the many other persons involved in hospital work, but is it not better that the author of a book should weigh up his experience and come down heavily in favour of what this experience has indicated to be the best solution? The author certainly has had considerable experience of hospital design from which more decided conclusions might have been expected.

Three forewords and a preface may be of assistance in encouraging sales of the book in different fields, but it would seem to be rather too many and to overload the book without contributing much of value to the average reader.

The book starts with three fold-out diagrams of main circulation which are very good but would have been more helpful if they had been a little more fully annotated. The book surveys, in very considerable detail, the requirements for the casualty department, dispensary, twenty-two out-patients' clinics, seventeen in-patient ward units of varying types, X-ray department, pathological department and the mortuary block. The detailed information should prove to be extremely valuable to those architects who have little

specialized knowledge of the planning requirements of certain of these particular hospital departments, more especially as relatively little information of the requirements and equipment of many of the specialized departments discussed is generally available in text-book form for ready reference and guidance.

The author has done a very large and very useful job of work. One can only hope that he will gain some reward for his pains, but 85s is a rather limiting factor.

P. C.

The Architect and the Law

By Richard Body, Barrister-at-Law. Institute of Registered Architects; 71 pages. Price 8s 6d.

LL those who practise architecture need to know something about the law in so far as it affects their own The law cannot always make good defects in their methods of working, nor can it allow many practices which they may regard as acceptable. In these ways, if no others, some idea of what the law does and does not provide is vital to good work. It is, however, all too easy to appreciate that this is desirable but by no means so easy to acquire the knowledge desired. So many books which offer assistance are too lengthy to be read by busy practitioners or even by students. that are reasonable in length are all too often choked with jargon or otherwise incomprehensible to the layman. Body's book avoids both these pitfalls. It is short and provides a lucid outline of the main features of the law as it concerns the architect. It is, more-over, entirely readable. Certainly it should be read by every student of the subject.

Only two reservations need be entered. This book is essentially an introduction, albeit a thorough one. No one should imagine that they can become their own lawyer on the strength of a knowledge of all that this book says, and although Mr. Body does not point that out, he would surely agree. In view of the value of this book and of the enterprise of the Institute in sponsoring it, it is all the more a pity that it should be so expensive for its size.

The Housing Repairs and Rents Act, 1954

(With Introduction and Annotations) by S. W. Magnus, B.A., Barrister-at-Law; Butterworth & Co. pp. 23 + 204. Price 22s 6d.

OF the several complicated pieces of legislation which came before Parliament last session few will be of more widespread interest and cause more difficulty to practitioners than the Housing Repairs and Rent Act. Its interest for the public at large is three-fold. In the first place, it provides that rents for certain classes of property, otherwise restricted, may be raised subject to certain fairly complicated pre-

requisites, and after observing certain rather involved procedure. Secondly, it provides an interim measure for deal ing with some classes of slum property by means of what is called deferred demolition. This means that local authorities may in certain specified conditions acquire slum houses for ultimate clearance, but presently repair, improve and maintain them. Lastly, it makes provision for grants to improve and convert particular houses. Local authorities are, of course, keenly interested in all these three processes since they are involved in a supervisory capacity in two of them and are the initiating body in the third.

The way in which the Act seeks to achieve these three things is undoubtedly complicated. Moreover, the Act is related or makes amendments to many other Statutes. This book, which is reprinted from Butterworth's Annotated Legislation Service affords a guide to the Act for those practitioners who already have a fair knowledge of Housing and Property Law. It consists of the text of the Act reprinted with extensive and useful annotation, together with the relevant parts of other Statutes affected by the Act. This latter addition is of particular value. Further, it contains the Regulations made under or as a result of the Act. These are likely to be of much practical use, since they contain the specimen forms to be used, such as notice of repairs increase, certificate of disrepair, and so on. The usual table of cases is included, and there is an adequate index. In all these respects the book will be a welcome document, and should prove helpful to those concerned with these matters.

The book is disappointing, however, in one important particular which considerably reduces its value to those who are not at least improvers in this realm; it is the introduction. The Introduction consists of two parts. The first is little more than a reprint of the White Paper, "Houses—the Next Step." The second contains a rather bare description of the Act itself. In view of the complexity of the Act and of the general lack of understanding as to its provisions it is to be regretted that the opportunity was not taken, when reprinting this volume from the legislation service, to provide a more generous and helpful guide to the new system which would assist builders and architects, surveyors and others to understand this difficult Statute.

F. H. B. L.

BOOKS RECEIVED

New Ways of Servicing Buildings. Edited by Eric De Mare, A.R.I.B.A. Published by Architectural Press. Price 30s.

Prestressed Concrete, by Gustave Magnel. Published by Concrete Publications, Ltd. Price £1.

John H. G. King, A.M.I.C.E., A.M.I.Struct.E. and Derek A. Creswell, A.M.I.Struct.E. Published by Pitman & Sons. Price 16s.

& Sons. Price 16s.

Timber and Plywood Annual, 1953-54.

Published by The Middlesex Publishing Co., Ltd. Price 10s.

THE LAW OF BUILDING CONTRACTS

III. The Architect's Liabilities and

BY GILES BEST

ABOUT three months ago a report was published of a case in which an architect was sued by his employer for the cost of some substantial variations to contract works which the architect had ordered without the employer's authority. The architect had, of course, to pay the extra costs incurred. He had ordered the work on behalf of the employer and the builder had done the work, so the builder was entitled to be paid by the employer. The employer's remedy was to sue the architect for breach of contract. This short and simple case is a useful illustration of one of the legal relationships which exist between different persons concerned in a building contract apart from the straightforward nexus between employer and contractor. The architect in particular may be said to act in three different capacities, as the employer's agent, as his expert adviser and finally as the arbitrator between employer and contractor.

In his capacity as agent the architect can and usually does enter into all sorts of contractual obligations on behalf of the employer ranging in importance from the acceptance of tenders to the issuing of an instruction for the variation of plans for a bathroom window. If he acts as though he had his employer's authority and acted on his behalf the employer is bound by the contracts as though he had made them himself. Of course, it is usually an easy matter to discover whether the architect in fact has authority to act on behalf of the employer. If he is named in the Articles of Agreement as acting for and on behalf of the employer and if the contractor is bound by the conditions to accept his instructions then clearly the contractor accepts the instructions as the employer's orders. If on the other hand the architect is so foolish as to enter into agreements with, say, specialists of some sort, to do work, without revealing that he is acting for and on behalf of the employer, he is personally liable on the agreements and, in the event of his employer's financial failure or his refusal to ratify, may find himself having to pay the bill or, alternatively, damages for breach of warranty of authority. An architect need not have his employer's consent to every order which he gives on his behalf. In many cases he is covered by the general authority which he is given, and in other cases if he purports to contract on behalf of the

employer his act may be ratified by the employer's subsequent consent. In fact, so far as the builder is concerned he is justified in treating every order by the architect given in connection with the works as a direct order from

the employer.

In the R.I.B.A. standard form of contract the architect's authority to act as the employer's agent is set out in detail in Clause 1 of the Conditions. The clause sets out the purpose for which the architect can give instructions and the form which these instructions are to take. It protects the contractor, by providing that oral instructions by the architect are to be confirmed by the architect in writing in answer to a letter from the contractor setting out the terms of the oral instructions. Silence on the part of the architect is to be taken as confirmation of the instruction in the terms set out in the contractor's letter. While there are other references in the contract to the architect's powers and duties this clause is the one which most effectively describes his duties as agent.

Clause 7 of the C.C.C./Wks/1 Government Contract contains provi-

sions to the same effect.

Apart from his liabilities, if he exceeds his authority as agent, an architect is liable for negligence in the exercise of his profession in the same way as any other person who holds himself out as an expert and undertakes to advise people in the matters on which he professes to be qualified. The question whether a person coming within this category has exercised reasonable and proper care, skill and judgment is, of course, at matter of fact. A test which has been proposed by the courts in the past is "whether other persons exercising the same profession or calling and being men of skill and experience therein, would or would not have come to the same conclusions as the defendant." Clearly this test is merely a test of skill and competence and not of taste. It can be applied either to the plans which the architect submits or to the manner in which he supervises their carrying out. In the first case the question is whether or not the architect's designs are practicable, in the second whether or not the architect has taken the correct steps in supervising the actual execution of the work. An example of negligence in the first of these two categories might be a case in which the architect has been called on to

use the skill and experience which he has acquired to design a building for a particular purpose. In designing the building he makes an elementary error of judgment which renders the building useless for the particular purpose for which he knows it is required. In such a case, if the error was one which no one in his position would have made if his mind had been fully applied to the matter, and if the error had not been excused by the express approval of his employer, the architect might lose the right to his fees, and might also be liable to pay his employer damages as compensation for any loss incurred in correcting the error. It is submitted that an architect could only be liable under this head on the clearest proof of negligence and that he could only be liable to pay damages if the loss incurred in correcting his error, added to the cost of building to his original designs, exceeded the sum which might reasonably be expected to be the cost of constructing a building from plans which did not contain the error. Cases of this sort must be very rare since errors of the sort which might fill this definition ought to be capable of detection at the drawing-board stage. Cases falling within the second category are the sort which are generally referred to when dealing with negligence on the part of the architect. Failure to inspect the site or to make adequate examination of foundations; delay in the supply of working drawings or instructions to the builder; failure to give notices required by or to observe the byelaws of local authorities; these are all examples of negligence by the architect for which he may be liable to the employer. So also in cases where an architect makes a gross error in advising the building owner of the probable cost of the works he may be unable to recover his fees on the ground that his services were worthless.

In both the situations which have been previously discussed the architect is in a position in which he is bound to act throughout for the benefit of his employer, the building owner. The situation may arise where the architect, by the terms of the contract, is appointed to act as an arbitrator between his employer and the contractor, as, for instance, where he is to certify whether or not work has been done in accordance with the terms of the contract. In such a case* *Chambers v. Goldthorpe [1901] 1KB624.

it has been held that an architect is not liable for negligence in the performance of his duties when granting a final certificate. In any contract which contains an arbitration clause it would appear that matters which can be referred to an outside arbitrator for settlement are not matters in respect of which the architect can be said to act as arbitrator between builder and contractor. Examination of the R.I.B.A. standard form of contract appears to reveal only one instance in which the architect may be protected by the fact that he is acting in a quasi-judicial capacity against an action for negligence. In clause 24 (f) the architect is given power to issue a final certificate which, unless it is obtained by fraud on the part of the contractor, is to be conclusive proof of the sufficiency of the works. Here the contract leaves the matter to the architect's discretion and does not provide for the reference of his decision to an independent arbitrator. The value of the works is, of course, a matter which can be referred to arbitration and it seems that the architect could not plead that he was acting quasi-judicially in answer to a claim based on negligence in making a valuation. On the other hand, if in making a valuation the architect relies on the surveyor's report in accordance with clause 9 of the R.I.B.A. form, he appears to be protected against any claim for negligence, as in making his report the surveyor is himself acting as a quasi-arbitrator.

So far this article has discussed the relationship between the architect and his employer, but, in addition to claims by the employer against the architect, the situation may arise where a third party suffers as a result of the architect's negligence. Suppose, for example, a statement negligently made by an architect to his employer is relied upon by a third party. Is the arehitect liable for any damage which the third party may suffer as a result? It would seem that he is not, following the reasoning adopted in a recent case.†

There a chartered accountant carelessly prepared statements which gave a totally misleading picture of the financial position of the company who employed him. On the faith of these statements a person was induced to invest money in the company. The company subsequently went into liquidation and he lost his money. He then sued the accountant for damages for negligence, but a majority of the Court of Appeal held that he was not entitled to succeed. Two of the judges of appeal said that the law was that unless there was a contractual link

between them a person injured by a false statement carelessly but not fraudulently made had no claim against the author. The third judge dissented from this view and, in his judgment, said that he considered that there was a duty owed by persons in a skilled profession to take care lest not only the employers but also certain sections of the general public were injured by their negligence. view is one of general interest and it may well be that it would be in the public interest if it were so, but the decision of the majority of the court is, of course, binding and must be accepted as a correct definition of the present legal position. It must, therefore, be assumed that the architect is liable only to his employer for negligence in the preparation of statements, plans or drawings.

TIMBER NOTES

The market has taken a serious turn to the discomfort of the consumer. In the softwood market the future indicates higher prices, and the dock strikes at major ports have lost several weeks of chartering at a vital period in timber exporting, so that the full quantities bought for arrival this year cannot reach this country by the end of December. Fortunately, stocks are good enough to prevent any possible shortage.

Some buying has already been done for next year, and joinery redwood is based on £83 a standard f.o.b. from well-known shippers in Sweden and Finland, being an increase of £3 a standard on the top prices paid this year. Such wood will not be reaching the building trade until early next summer, which gives an idea that prices will rise between now and that time to cover the extra costs.

Good joinery timber, whether redwood or whitewood, is now certain to command a better price in 1955, but there is some hope that lower grades, particularly fifths, will do nothing worse than stay at the present prices. There is even a slight chance they might be cheaper.

There have been price increases on the softwood market lately. These have generally been blamed onto the dock strike, but this is true only in a few cases, for the selling prices to the user are still not up to the replacement prices prevailing this year. Only because there is such keen competition among the merchants to get orders has it been possible to keep prices of softwood at figures widely charged until recently.

Hardwood prices are definitely going up. The importers are having to pay more for most tropical timbers, while the Japanese oak and Yukoslav beech prices stay high. The Yugoslavs have already sold on the market all the hardwood they will have available for next year, and the prices were higher.

Plywood prices are also going up.

The Finnish prices are based on cifco plus 10 per cent at least, and the new Russian offers for next year show that the U.S.S.R. will not be doing anything to bring down prices.

thing to bring down prices.

Insulation board is short in many areas, and contractors often complain they cannot get all they want at short notice. This position will continue for the next few months, due to the limitations imposed upon the importers by the quota system. The dock strike seriously disrupted supplies to the merchants, for many are selling ahead to contractors on the basis of known arrival dates of ships from Northern Europe. These calculations have been badly upset by the strike, and the trade will not be able to recover fully from the effects for some weeks.

Prices of boards stay fairly steady, with any changes being generally upward. Hardboard supplies are a little easier. British board factories are working to capacity, but have sold production well ahead in most cases.

Free Catalogue of Official Publications on Building

Publications on building and allied subjects, which have been issued by Government Departments and are currently available, are listed in a booklet ("Government Publications on Building: Section List No. 61") just published for the Ministry of Works by H.M. Stationery Office.

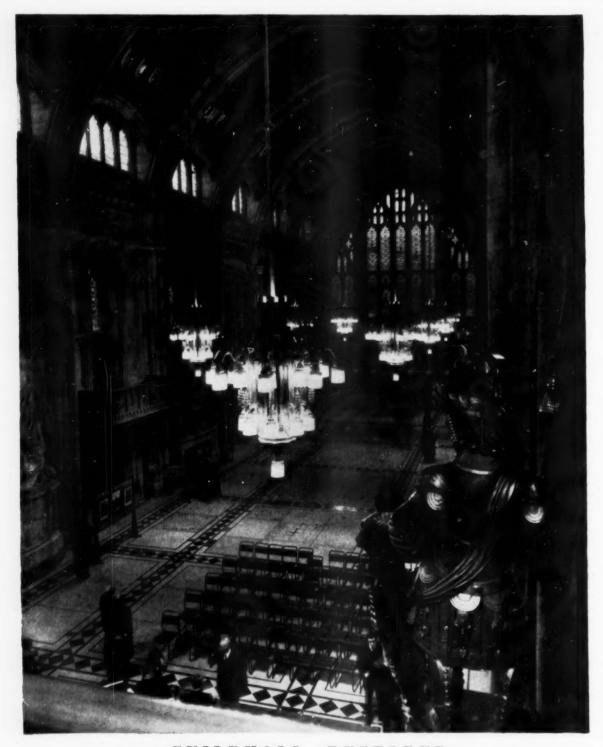
The booklet, which is obtainable free of charge on application to H.M.S.O., should prove a useful reference catalogue for builders, civil engineering contractors, professional men connected with the industry, foremen, students and operatives. It lists under appropriate headings not only books, but series (such as National Building Studies and Post-war Building Studies), pamphlets, advisory leaflets and digests, issued by the Ministries of Works, Housing and Local Government, Labour and National Service, Education, and the Building Research Station and the Laboratories of Road Research and Forest Products Research of the Department of Scientific and Industrial Research.

Leverhulme Research Awards

Application is invited for Fellowships and Grants in aid of research. These awards are intended for senior workers of established position and are limited to British-born subjects normally resident in the United Kingdom; in exceptional circumstances the Trustees may waive the condition as to residence.

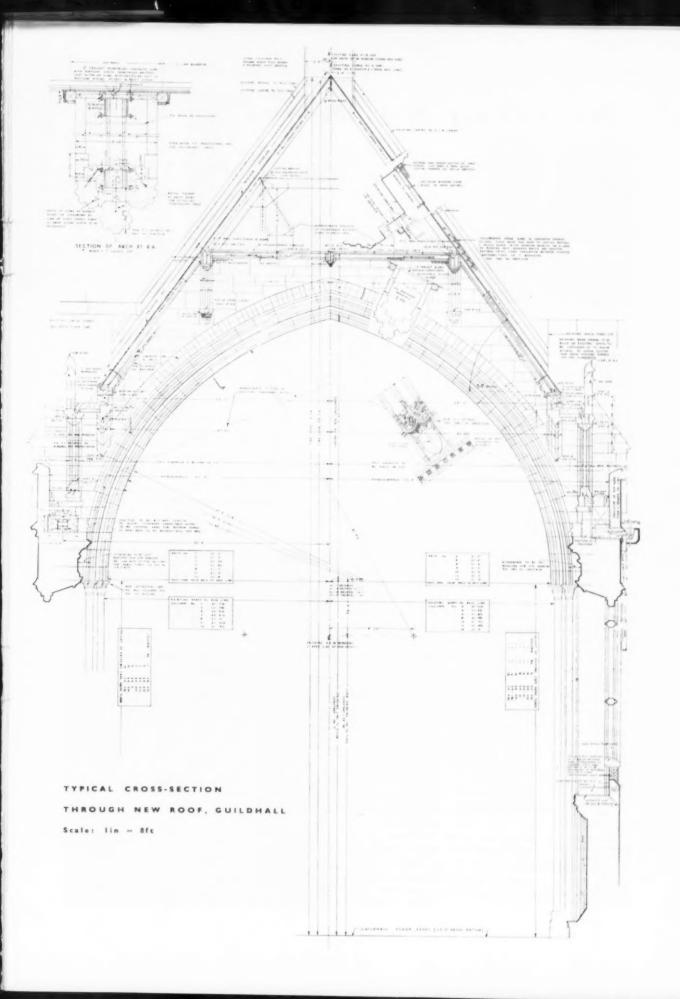
Forms of application may be obtained from the Secretary, Miss M. Branney, Leverhulme Research Awards, St. Bridget's House, Bridgewell Place, London, E.C.4. Tel. City 1910.

Applications must be received on or before December 31, 1954. Results will be announced in May and the awards will normally date from September 1, 1955.



GUILDHALL RESTORED

The third roof of the medieval Guildhall, a Victorian hammerbeam structure, was destroyed by enemy action on the night of December 29, 1940. Nearly ten years later, on May 25, 1950, the Corporation of London appointed Sir Giles Scott, Son and Partner, as architects for the restoration. Sir Giles' scheme was approved by a narrow majority and work started in November 1953: the job was completed on October 30 this year. With the introduction of the stone arches it was possible to introduce clerestory windows which thoroughly improve the natural lighting in the hall. Other features of the design include a gallery for Press—television and so on, the introduction of floor-heating panels, and provision made for air conditioning as and when the necessary chambers can be built to house the equipment. The glass to all the windows, except the clerestory, is patterned with scrolls bearing the names and dates of all former Mayors and Lord Mayors, with the monograms and supporters of the reigning sovereigns. Eight bronze chandeliers hang from the oak roof and embroidered banners depicting the arms of the senior livery companies will be hung in the centre of each bay above the battlements. A new Gog and Magog stand on either side of the end gallery, carved by David Evans. An interesting feature of the structure is that in order to minimize the thrust at the springing of the main arches they were formed in reinforced concrete as a bent beam, the lower part of the masonry acting as permanent shuttering, see opposite. The contractors were Trollope and Colls Ltd.



Building By Direct Labour

least part of the building work needed

at a less cost, it would seem desirable

from the public point of view that the

system should be adopted where it is

HIS is a very controversial subject as opinions about it are apt to very coloured by preconceived views on its desirability, and these views usually arise from the political background of those discussing this method of building. Due to this tendency to prejudge the advantages and disadvantages of direct labour, true assessments of its value as a system for the communal benefit never seem to be achieved. A survey* recently published has set out much information which may at least serve as a better guide to the forming of an appreciation of the usefulness of the method. The survey contains basic information in the form of facts and figures and is not a mere airing of views without proper factual support, as is so often the position. This survey appears to have been commissioned as supporting evidence for the nationalization of the building industry, as proposed by the Amalgamated Union of Building Trade Workers; it may be, however, that the Union will not like overmuch certain of the points made by the author in his attempt to provide an unbiased picture of the use of this method of building by Local Authorities.

Even without the survey there seems to be little doubt that, at least under certain conditions and for certain classes of work, such as maintenance and repairs, there is some evidence which favours the using of direct labour, in spite of the fact that the employer side of the industry must of necessity disapprove the removal from their sphere of a source of income to its members.

The survey is perhaps unfortunately limited to an examination of the use of direct labour by municipalities as it does not include any information derived from industrial organizations who employ building labour under their own direction and management, again mainly, it appears, for mainten-ance work. The use of direct labour has increased steadily for many years and it appears lately to be gathering even more momentum in the Local Authority sphere. It should be noted that its use is not confined to those Local Authorities who are politically left wing, although it is true that many of the Local Authorities quoted as doing large quantities of direct-labour work, and especially the construction of new building by this method, appear to have Labour majorities on their Councils.

Local Authorities are well aware of their responsibilities to their ratepayers and if this method could be proved to be one which efficiently provides at economically beneficial. There are, however, likely to be conditions where the method has been or may be adopted for reasons, such as political leanings, which may not prove to be economically sound. Thus it is of extreme importance to the industry that the advantages and disadvantages of using the method under varying conditions should be examined with very great care.

To operate a successful direct-labour scheme certain factors are necessary which may not always be present.

which may not always be present. First, there must be really good and knowledgeable management; it does not follow that a good municipal engineer or architect has the proper training or experience to fulfil this function, often it is an additional duty, and consequently the amount of work must be such as to keep employed regularly a labour force which justifies the cost of a proper building management and its attendant office staff. Municipalities do not appear to like greatly the taking on and putting off of its labour to suit the amount of work in hand; thus there has to be a planned even flow of work giving a similar quantity of employment to the various trades-this is by no means an easy condition to provide. To undertake large-scale projects requires considerable capital expenditure for plant, equipment and workshops, which again can only be justified if there is a longterm programme of an approximately equal annual size and similar in capital equipment needs. The choice of sufficiently skilled labour and easy facilities for its dismissal, if it does not pull its weight, is as important to direct labour management as it is to private enterprise. Direct labour may have an advantage for its labour, if there is a carefully prepared long-term scheme, as it provides a certainty of continuance of local employment.

Another possible advantage is that the labour may be allowed to do its work properly without undue pressure to skimp the work in order to keep the cost within a cut-tender price. Incidentally, it is often claimed that direct labour provides a higher standard of workmanship because the same labour force has to go back to do maintenance or repairs and it knows that blame for defective work can be placed upon it.

A direct labour department, as pointed out in the survey, cannot be operated under the same controls and standing orders as are applied to other departments of a municipal authority, since it has to work on a basis similar to that of the normal private enterprise

contractor, and this would be quite impossible under the normal Local Authority procedure.

Direct labour departments in many areas have to submit tenders to the Council in competition with private enterprise builders, and it proper that they should; if, however, private builder is merely being used for the purposes of acting as a check on prices, it would not seem unreasonable to provide some other form of appraisal which does not involve the private builder in heavy costs and only small chance of obtaining the work. The private builders may think that it is in any case unfair to put them into competition with a direct labour management which does not have to make a profit to live. The important factor in tendering, however, is that it is equally unfair to the direct labour management, as it is to private enterprise firms of good reputation, if they have to compete with cut-throat firms who, if they get the job, can be relied upon to skimp the work in order not to lose money; selective tendering is therefore as important to direct labour as it is to responsible private enterprise.

Maintenance and general repairs, particularly of municipal housing, seems to be a sphere in which most direct labour jobs occur. It also seems to be the type of work for which it is likely that direct labour is best suited, because programmes can be more easily planned to give a regular amount of work and they do not call for special skills in trades or for costly and specialised plant and equipment, for which there is normally a very uneven demand.

Those who are in a position to use direct labour methods, whether they be public authorities or industrial organizations, should weigh up very carefully the advantages and disadvantages before either accepting or condemning the method. It may be that this survey, although produced for another aim, may provide some very useful guidance and information. It would be most advantageous if a true assessment could be made of the conditions under which the use of direct labour would be beneficial to the nation as a whole and when its employment is likely to be economically wrong. To be generally acceptable, such an assessment must be made by a person or an organization which is not open to criticism on account of its political affiliations or leanings either in support of organized management or organized labour. Perhaps it is a task which a body such as the Nuffield Foundation might undertake in order that there may be unbiased national

DUTCH UNCLE

^{*} Building By Direct Labour—A National Survey, by W. S. Hilton (The Amalgamated Union of Building Trade Workers).

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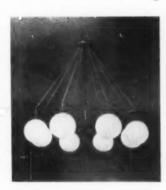




I. Available in white, black or cherry red painted metal reflector and set in brass bracket. Price £1 11s &d (reflector), 13s &d bracket.

2. Available in black, white and peony red. The pierced crown is in polished brass. Price £3 &s plus P.T. 11s 4d.

3. Eight Chrysaline balls suspended by flex and spread by a brass spacer.



New Contemporary Light Fittings

THE General Electric Co. Ltd., which brought out its first standard range of contemporary lighting fittings three years ago, has been so encouraged by their success that it is introducing a further fifty fittings, the majority of which have been designed by Beverley Pick Associates in collaboration with the G.E.C. They can be seen in a new showroom at the Company's headquarters, Magnet House, Kingsway, London.

An important feature of the new fittings is the use of strong luminous colours for shades as well as a variety of enamel finishes on metal. The new range embraces ceiling fittings, pendants, wall brackets, floor and table standards. The lampshades are made of glass, Chrysaline, spun aluminium, buckram and card, in shapes which vary from globes and dishes to cones and "diabolos." Materials like straw, raffia and wickerwork have been avoided. The predominant colours, apart from black and white, are duck-egg blue, peony, mustard yellow and cherry red.

One versatile device provides a very convenient method of suspending a cluster of shades from a single point in the ceiling. It consists of three or five arms radiating from a central ceiling plate. The shades, which again can be of almost any type, are suspended from the flex. The arrangement and height of the shades can thus be varied to suit individual taste.

A Domestic Heat Pump



Owing to an inaccuracy in the note which appeared in October 28 issue, we ask readers who filed the previous note to replace it by the revised one below.

This domestic heat pump, designed after a great deal of research by Ferranti Ltd., of Moston, Manchester 10, has recently been put into limited production. It is available for trial purposes to potential distributors at a list price of £100 plus £41 8s 9d purchase tax, with appropriate discounts.

This heat pump, known as the "Fridge-Heater," has been designed to be situated in an average-size domestic larder, 15 sq ft in floor area, which it will keep cooled. In addition the "Fridge-Heater" will supply all the hot water required for domestic uses excepting radiators. It is recommended that the size of the storage tank should be between 20 and 40 gallons capacity.

The unit thermostatically controls the hot water temperature at 140°F, and it consumes on average 400 W, although the output is over 1 kw, making it extremely cheap to run.

It is interesting to note that the action of the "Fridge-Heater" dries and cleans the air inside the larder, and an ice-making compartment is provided. The size of the cabinet is 16in square on plan and 3ft high.

An especially important feature of the machine is that if no hot water is being used the machine will nevertheless keep the larder temperature 15-20 F below the mean outside temperature.



Mosales

FITTINGS
WASHING MACHINES, ETC.
C2/24

There are no moving or mechanical parts in the tub of the new gas heated, electrically driven washing machine made by Parkinson Stove Co., Ltd., Stechford, Birmingham. The internal movement of the clothes being washed is caused by jets of water. Capacity—5 lb clothes for washing and 6½ lb. for boiling. Size—30½in high x 16½in wide x 18½in deep, with 10in rollers. Finished white enamel with tinned copper pan. Normal washing time is 5 minutes. Fuel consumption—gas: 44 cu ft per hour at 500 c.v. and electricity: 430 watts.



SERVICES

SPACE HEATING

B3/59

This new gas heater, the "Sapphire 20," has been produced by William Sugg & Co., Ltd., Vincent Works, Regency Street, London, S.W.I. It has been developed on the balanced flue principle and the air for combustion is drawn into the heater from outside the room, circulated round the combustion chamber and then passed back into the open air. Thus it is claimed that the heat is retained without any of the injurious flue gases. The heat can be regulated and a comfortable temperature can be maintained in a room of 1600 cut fat an approximate cost of 2d, per hour. Size—34in high x 264in wide x 74in projection. Finished golden bronze stoved enamel or other colours.



SERVICES

WATER HEATING

B6 28

The new Industrial Boiler by Trianco Ltd., Imber Court, East Molesey, has been developed to give maximum heat release from a wide range of solid fuel. This is brought about by complete combustion at high temperatures, together with injection of pre-heated secondary air. The tubular panels provide the maximum heat transfer giving low chimney temperatures. It can be fitted with automatic declinkering device and with automatic conveyor system for fuel feed and ash removal. The boilers range from a normal output of 250,000 B.Th.U.s upwards.



OFFICE FURNITURE

The "Ultravox" dictating machine by Remington Rand Ltd., 1-19 New Oxford St., London, W.C.I., operates on any voltage from 110 to 250 volts A.C.; it can also be used on D.C. current with the aid of a converter and in normal means of transport such as trains, motor cars, and aircraft. Operation is simple as controls have been reduced to a minimum. The sound carrier can be inserted or withdrawn in 2-3 seconds. Instantaneous erasing can completely sliminate the old recording and the sound carriers can be used over and over again without loss of fidelity. Errors are automatically and completely erased by dictation of the correction. It is possible for both sides of a telephone conversation to be recorded and amplified if necessary.

INDUSTRIAL NOTES

Thos. Storey (engineers), Ltd., of Victoria Street, London, have been appointed sole agents in the British Isles for Lorrain Equipment—the products of the Thew Shovel Company of Lorraine, Ohio, U.S.A.

Storeys will be selling agents and will provide a spare parts repair service for the equipment, which includes a range of mobile cranes from four tons to sixty tons and excavators up to two and a half cubic yards.

◆ The I.T.D. company who are the sole sales outlet for the famous "Stacatruc" and "Aerolift" Fork Trucks and the Electricar" range of platform trucks have recently lost the services of Mr. R. J. L. Fish their Export Sales Manager who had been with them since 1947.

His place has been taken by Mr. John R. S. Halford who has been acting as Mr. Fish's assistant since early 1951.

- Leicester, Lovell & Co., Ltd., of North Baddesley, Southampton, the manufacturers of Casco Synthetic Resin and Casein Glues, announce that they are now in a position to supply a Polyvinyl Acetate Glue.
- Stanhope Productions, Ltd., of 120 Haigh St., Liverpool 3, have acquired the Rostrevor Green Granite Quarry, and are preparing to reopen it for the production of blocks, slabs and chipps. The quarry was closed in 1880 owing to Sweden undercutting the cost of production and has not been worked since, but the quality of this green granite is so superior and the call for a high class granite at economic price both as slabs, blocks and chipps is such that the Company has already entered into contracts to supply over 1,000 tons per week.
- T. & W. Farmiloe, Ltd., the makers of Nine Elms Paints, announce the appointment of two new representatives. They are:—

Mr. D. Shaw and Mr. G. H. Pearson. Messrs. Shaw and Pearson will be centred at the new Nine Elms Service Depot at 109 Clifton Road, Balsall Heath, Birmingham, which is under the control of Mr. F. J. Hyatt, Farmiloe's Midland Sales Manager. Mr. Warwick Harvey, a member of the Council of the Institute of Export for the past four years, has just completed his first year as Export Manager. Mr. R. J. Northam, T. & W. Farmiloe's Kent representative, has moved to 62 St. Swithens Road, Whitstable. Mr. Northam's telephone number is: Whitstable 2137.

- ♠ Mr. Douglas F. Walton, Local Director of Thos. W. Ward, Ltd., Albion Works, Sheffield, and a Director of Darlington Railway Plant and Foundry Co., Ltd. (a Subsidiary Company) has been appointed Director of The Ketton Portland Cement Co., Ltd., also a Subsidiary of Thos. W. Ward, Ltd., who are sole distributors of "Ketco" and "Kettocrete" brands of Portland and Rapid Hardening Cement.
- Blundell, Spence & Co., Ltd., announce that following their acquisition of a controlling interest in Vulcan Products they have agreed to purchase a further block of shares in the company, which means that they will shortly hold 42,218 of the 50,000 £1 shares of Vulcan Products, Ltd.

CURRENT MEASURED RATES (LONDON)

These apply to new work of normal character and some size. These rates are for time and materials only, and carry 10 per cent in excess, so the appropriate essential on-costs should be added. The basis cost of material used in the calculation of these prices is taken from the foregoing tables which carried up to October, 1954.

which carried up to October, 1954.	
[COPYRIGHT]	Sectional Lintols and Columns and beams casings projections
ESSENTIAL ON-COSTS	Up to 36 4/2 4/5 4/7 Per cubic ft.
Fees payable to L.C.C. for District Surveyor:	36 to 72 3/11 4/3 4/- do.
For new buildings of ordinary construction ex-	72 to 144 3/9 3/10 4/- do.
ceeding 5,000 cubic feet, for every 1,000 feet or £1/10 -	over 144 3/7 3/9 3/11 do.
part of same up to 1,000,000 cubic feet $1/6$, at $+ 1/6$	Walls 6in thick 15/4 Per super yd.
together with an additional sum of £1/10/	Do. 9in thick
After which allow per 1,000 do at $+9d$.	Suspended floors average 6in thick 16/2 do.
For alterations and additions: When £100 the sum of £2/10/-, plus 12/6 for £2/10/- at +	REINFORCING RODS (round) bent and placed— Per cwt lin lin lin lin lin lin
every £100 or part of same, up to £1,000 12/6 per 100	Per cwt \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
When over £1,000 the sum of £8/2/6, and for $\frac{£8/2}{6}$ at	In walls 78/- 72/- 66/- 59/6
every £100 or part of same beyond $3/ \int + 3/-$ per 100	In columns 85/- 77/- 71/- 64/-
Public buildings: Fees as above but plus 50% + 50%	FORMWORK and Supports (4 times use)-
Fees in respect of means of escape in case of fire	Floor soffits Beams Walls Columns
are 1/5th of the above or £2 if greater or in the case of a one-storey building £1 1/5th	17/7 per Yard 2/5 2/1½ 2/1½ per super foot.
Steel framed or r.c. buildings double +2	BRICKWORK
	BRICKWORK per YARD superficial reduced to ONE BRICK
Allowance to cover National Insurances, Holidays with	in thickness (scaffold to add)— In 1:3 cement mortar Flettons or other similar at 113 – per 1,000 37/4
Pay and Public Holidays, Welfare, Third Party Risk,	Mild Stocks or do., at 221/6 per 1,000
Travelling and Guaranteed Week is made in the rates attached to the items.	Second Stocks or do., at 256/6 per 1,000 54/-
Allow for Fire Insurance do \$%	Southwater engineering or similar bricks, at
Allow for Water for use on the works and apparatus do. 6/6%	370/- per 1,000
Allow for hoarding, or similar licences in City of London say £10	Blue Staffordshire wire cut at 462/- per 1,000 80/10
Do. under Borough Councils per ex month say 2/6	Deduct if 1:1:6 Cement-Lime mortar is used in
Allow for Office, Fire, Attendance on C. or W., etc., p. week say £1	lieu of 1:3 Portland Cement mortar 2d. Add if brickwork commences above ground level 3/9
Supervision, etc., assessment Contract value	Do, if in backing to masonry including cutting
£4,000 £6,000 £12,000 £24,000 £50,000	and waste for bonding 2/10
Cost of admin 6% 5% 5% 4½% 4½%	Do. If circular-on-plan 6/9
Agent or foreman (each) 5% 4½% 3½% 2½% 1½%	Do. If in underpinning 6/9
Timekeeperor Watch-	BRICKWORK IN THICKNESS NOT REDUCED—
man (each) 21% 21% 11% 1% 1%	Brick, Half- finished with 2"
	Per yard superficial on edge Brick fair both cavity and
SPOT ITEMS AND DEMOLITION, ETC. Per foot run Hoarding erected and removed	walls walls sides G.I. tics
Hoarding erected and removed	In Flettons or similar 16/- 20/6 37/9 43/3
Proper gantry do 68/-	In second stocks or do. 21/7 28/7 53/5 59/3
Sleeper roadways 14 6	Add: for pointing as
Needling, strutting and shoring including all labours Per foot cube	work proceeds, per side 1/6 1/8 1/6 1/6
and use and waste in erection and removal 17/-	Thicknessing to old walls, includ- Fletton Stock
Breaking up and removing hard masses of concrete Per yard cube or brickwork, etc., found in foundations	ing cutting, toothing and bond-
or brickwork, etc., found in foundations 58/-	ing to same an average total
1 11 2	thickness of 1 brick 53 - 62/8 Per yard
ALTERATION-DEMOLITION— Brick Brick Per yard	Do. all as last but an average super.
Cutting out cement concrete or Per foot super Cube brickwork in small quantities 1/3 2/4 3/2 57/-	total thickness of 1½ bricks 69/- 90/3 do.
Do. if either in very small quan-	WALLS BUILT IN SUPERIOR BRICKS—
tities or reinforced 2/1 3/8 5/3\ 84/-	In 1: 3 Cement mortar, fair faced and pointed on both sides as the work proceeds:— Half-Brick One Brick
Debris into baskets and removed	In first quality Stocks at 272/ 33/10 60/2 Per yard
from inside to outside of bldg 3½d. 7d. 8½d. 12/2	In red facings at 290/ 34/- 60/7 super.
SCAFFOLDING Period—	In bluepressed facings at 509/6 49/3 91/4 do.
Per Yard superficial 1 month 3 months 5 months	GENERAL AND SUNDRY—
Putlog type—4' 6" lift 4/10 6/6 8/2	Cut tooth and bond new brickwork to old 4/3 per fi
	Damp proof course, double slate, horizontal 3/- super Do., as last, but vertical 3/10 do.
Independent type—4′ 6″ lift 6/2 8/9 11/3 Do. —6′ 0″ do 4/2 5/9 7/5	Do., as last, but vertical
	Frames, bed and point in cement mortar, one side 4d, per ft, run
EXCAVATION Common Loam Stiff Hard	Window board of $6'' \times 6'' \times \frac{7}{4}''$ rounded on edge
Per Yard Cube. By hand Soil and Clay Clay Gravel Reduce levels 4/11 5/5 6/9 8/2	quarry tiles, bedded, pointed, cut and fitted 3/- do.
C	Terra cotta air bricks built in and 9"×6" 9"×9"
Barrow 25 yds 2/6 3/4 3/9 2/6	pointed, including flue 5/- 9/- each Chimney pots, plain red, set and 1ft high 2ft high
Fill and ram 4/6 5/- 5/5 5/3	Chimney pots, plain red, set and 1ft high 2ft high flaunched in cement mortar 13/- 19/- each
Load and cart 14/- 14/5 14/11 14/2	Metal windows, assembled, hoisted Up to 5ft 5ft to 10ft
By machine	and fixed, lugs cut and pinned super. super.
Bulk dig and load 3/4 3/9 4/2 4/2	and frames bedded and pointed
Lorry standing while loading and 5 miles travel to tip 5/6 6/1 7/4 6/9	one side in cement mortar 10/9 13/6 each
and 5 miles travel to tip 5/6 6/1 7/4 6/9 1 extra mile to tip 7d. 8d. 8\frac{1}{2}d. 8d.	10ft to 20ft 20ft to 40ft.
	super. super. 21/- 35/- each
CONCRETE 1 in. Ballast Aggregate Per yard cube	Leaving holes through walls for pipes Small pipes Large pipes
1:3:6 Cement concrete in foundations	and afterwards making good 3d. per in 6d. per in
	in depth in depth
REINFORCED CONCRETE	Cutting do., and afterwards do 10d. do. 1/8 do.
1:2:4—fin. concrete, worked around reinforcement, between	Cut mortices in brickwork or concrete for bolts 1/11 per in
formwork in the following (at various levels):— Foundations and surface beds77/- Per cubic	or dowels and run in with cement grout in depth, each
1997 11 1A1 -1 1 1	Holdfasts of stout hoop iron bent holed and screwed to frame and built in 1/2 each
Walls, 12in. thick of more 84/- Yard	and screwed to frame and built in 1/2 each

BRICKWORK—Continued	concrete bed under drain 4in 6in 9in pipes and benching up on 18in wide 20in wide 23in wide
FACING—	both sides—6in thick $5/7$ $6/6$ $8/1\frac{1}{2}$
Extra only over common brickwork (113/- per 1,000) for facing with superior bricks in <i>Flemish bond</i> and pointing as the work proceeds.	SALT GLAZED SANITARY DRAIN PIPES and lay and joint with Yarn and Cement Mortar in trench.
Rustic Flettons (138/-) 3/9 per yard super.	Per foot run
White (200/-)	"Best" Quantity 4in 6in 9in
Reds (290/-)	Best " 2 Tons or more 2/6 3/7 6/- over 100 pieces 2/9 4/1 6/9
Blue pressed (509/6) 36/8 do.	under 100 ditto 2/10 4/3 7/3
If built in English bond, Add 10% to above	"Best Tested" 2 Tons or more 3/1 4/5 7/7
If do. half-brick stretcher bond, Less 25% off above.	over 100 pieces 3/7 5/4 9/- under 100 ditto 3/10 5/7 9/6
All labour and material in forming brick-on-edge coping with	"British Standard" 2 Tons or more 2/8 3/11 6/6
two courses of roofing tiles under and cement weather fillets on	over 100 pieces 3/1 4/5 7/7
both sides, built in cement and pointed as the work proceeds.	"British Standard under 100 ditto 3/3 4/8 7/1 "British Standard 2 Tons or more 3/3 4/9 8/-
Per foot run 9" thick 14" thick In picked Flettons 6/1 8/2	Tested" over 100 pieces 4/1 6/- 10/5
In first quality Stocks 7/5 10/10	under 100 ditto $4/2 - 6/3 - 10/1$
In red facings	Extra for bends "Best"—Contained in 2 3/10 5/7 15/8
Plumoing angles 2d. per foot run	Extra for junction "Best"
Fair cutting 10½d. do. Fair raking cutting 1/5 do.	-4in on 4in, 6in on ditto 6-89 25/6
Fair circular cutting 1/5 do.	6in—9in on 9in.
Fair souint or birdsmouth 1/9 do.	IRON DRAIN PIPES—
ARCHES	Heavy cast iron socketed and laying and Per foot run
Extra over Fletton brickwork for forming window head with red facing bricks set on end and with foot run	jointing in molten lead— 4in 6in
4½" soffits and pointing	In main runs
Do. for rubbed and gauged flat arch in red foot super	In branches
rubbers set in putty with fine joints 17/6 PARTITIONS	Extra over last for bends and extra joint 33/6 56/-
Per yard super—	Do. on do. for junctions and extra joint 45/- 78/-
(over 100 Yards) 2in 2in 3in	Cast iron gulley with 10½ in inlet and 4in out- let, composed of hooper and trap, and 9in
Concrete slab partitions in cement mortar 9/9 11/- 13/10	extension piece and 10½ in grating, and
Hollow clay do	jointing all together, and jointing to drain
and ends 4\d. foot run.	and surrounding in concrete 130/- Do. rain water shoe with vertical inlet and
PAVING lin lin lin	inspection cover, and joint up and embed. 65/- 114/-
Grano trowelled gauged 5: 2 8/- 9/- 10/- yard super	
1×5in skirting, square top and cove bottom 1×5in red quarry tile paving	MANHOLE SUNDRIES— 4in 6in
in × 6in do. skirting 1/9 foot run	Salt glazed straight half-round main channels each 5/- 7/-
∮in × 6in do. skirting 1/9 foot run Jointless flooring, ∮in thick 20 – yard super	Do. curved do. 10/6 15/-
ASPHALTE (normal conditions and fair quantity)	Do. three-quarter section splayed channel bends (Barrons or similar) do. 13.9 19/10
in pitch mastic floor in B.S. one coat on felt underlay	channel bends (Barrons or similar) do. 13/9 19/10 Heavy manhole steps galvanized do. 10/-
on prepared concrete base 1450,48 1375,47	Fix only manhole covers do. 10
Black Brown Red	4in Mica flap, brass faced, f.a.i. valves
Per yard super 12/6 13/2 15/-	and fix with molten lead joint do. 34/-
Mastic Natural	ROOFER
Unit B.S.988 Rock	CORRUGATED ASBESTOS SHEETS
in in two thicknesses on B.S.S. 1162/44 felt underlay on prepared	P.C. 6/81 per super yard, including side and
concrete base yard super 17/- 22/6	end laps and fixing to wood 134/- per squa
concrete base	Eaves filler pieces
In skirting 6in high, angle	
and turned in at top foot run 3/- 3/6	Plain roofing tiles, machine made, sand faced, 4in gauge nailed every 4th course with 1½in
External angles each 6d. 6d.	galvanized nails, to battens (measured
Internal ditto each 10d. 10d. Tenking of Damp Course B \$ 1007.43 R \$ 1418.47	separately)
Tanking or Damp Course B.S.1097/43 B.S.1418/47 Vertical in two thicknesses yard super 22/6 32/-	Extra over last for top edge or abutment cutting $1/1\frac{1}{2}$ do. Do. for double course at eaves $2/0\frac{1}{2}$ do.
fin horizontal ditto yard super 15/- 23/6	Do. for double course at eaves
Vertical in three thicknesses yard super 32 - 39 -	Do. Valley tiles including cutting and waste
11in horizontal ditto yard super 21/- 30/6 Labour rounded external	on both sides 10- do.
angle per foot run 6d. 6d.	Do. Bonnet hips and do. bed and point 10/6 do. Half-round ridge and bed and point 2/9 do.
Ditto internal angle fillet per foot run 10d. 11d.	Fixing soakers 1/4 dozen
Ditto double ditto per foot run 1/8 1/8 Collars to small pipes cach 3/6 4/-	
Ditto to large pipes each 66 8-	Bituminous felt roofing in two layers, laid breaking joint and bedded with hot mastic
DRAINAGE (1 foot in depth 4/2	and finished with fine dry grit 10/6 yard
Per lineal yard 2 do 7/2	Do. but in one layer only
Excavate trench, and plank and 3 do	WELSH SLATING— Per square ————————————————————————————————————
bottom to fall, return fill and 5 do	3in lap, 2 zinc nails to each slate 293 - 327 - 364 -
ram earth after drain is laid, 6 do 36/11	
and load and remove surplus. 7 do 45-	Additional labours — Per foot lineal-
In ordinary ground— 8 do	At tops, verges and abutments—straight 1/6 1/8 1/10 Do. —raking 2/3 2/6 2/9
10 do 73/4	At hips and valleys (each side) 2/3 2/6 2/9
11 do 91/3	At eaves, double course 3/- 3/3 3/8



Re-fused in 15 seconds without dismantling

Re-fusing is quick and simple with the Ediswan rectangular pin plug and plug adaptor. The adaptor is wired to an appliance in place of a normal plug. A second appliance can then be fed from the adaptor outlet.



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THE EDISON SWAN ELECTRIC COMPANY LIMITED

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ZINC WEATHERINGS



House at Kensington. Architects: Leonard Manasseh & Partners.

In this house, contemporary design fits snugly into a Kensington background. It also illustrates some interesting uses of zinc—to cover the neat porch hood, and as weatherings for window sills and roof verge. For weatherings, zinc is easy to fix and rigid, and prevents staining of wall surfaces.

From roof to foundation, zinc has vitally important uses in contemporary building—for gutters, pipes, weatherings, flashings and hoods. And there are now no restrictions on its use. Supplies are plentiful, and likely to remain so. The price of zinc has dropped considerably, and it is now one of the cheapest permanent materials.

The Zinc Development Association is a non-trading body which is always prepared to give technical help to potential users. Publications, together with lists of stockists of all zinc building materials and of firms specialising in zinc work, are freely available.



Porch with zinc covered hood.



Detail of porch hood, showing gutter.



Zinc weathering on window sill.



Weathering to curved sill of bay window.



FLOORS AND FLATS	In shelves, table tops, wrot and fixed $2/3$ $2/6$ $2/11$ $3/5$ Do. in divisions and ends framed $2/5\frac{1}{4}$ $2/8\frac{1}{4}$ $3/9\frac{1}{4}$
Hollow tile in situ or precast units hoisted, bedded and fixed— Superimposed load Span ——	Add if crosstongued 6d 6d 6d 6d 6d
	SUNDRIES-Per foot run In short In long Add for cups
Per yard super. 100 44/3 51/3	Glazing, beads mitred around lengths lengths & screws
10 10 12 12 12 13 14 15 16 16 16 16 16 16 16	and fixed with brads 6d. 4d. 2d. Rounded heel or hollow 4d. Tongued and grooved angle 6d.
CARPENTER AND JOINER	Mitres 3d. per sectional inch.
SOFTWOOD CARCASSING— per foot cube— Labour, materials, waste nails, Plates Joists Rafters Trusses hoisting and fixing 17/10 18/10 20/5 22/6	Fitted ends 2d. do. STAIRCASE— Per ft
	14in Softwood treads with moulded nosings. 1in Super risers tongued both edges and glued, blocked and
Rough boarding 130/- 159/6 196/6 Softwood batten flooring, straight	bracketed on and including two fir framed carriages
joints, splayed headings 130/- 159/6 196/6 Do. grooved and tongued 153/- 183/- 226/-	Do. but in winders
SKIRTING— Per foot superficial— in in lin	2in moulded string
Wrot softwood moulded skirting with	2in. do. ramped
grounds and backings plugged 3/3 3/10 4/5 Mitres to do 3d. per sectional inch.	Tongued and mitred angles
Fitted ends 2d. do.	Tongued heading joints Ends of treads and risers housed to string 3/6 do.
SASHES, fanlights, casements, borrowed lights, etc.—	Extra for curtail ends to steps, glined up and veneered riser and solid blocking 95 - do.
Per foot super— Without With bars (2ft sup. in each square)	Balusters about 2ft 9in long, square and 1in 1\frac{1}{2}in 1\frac{1}{2}in framed each end each 3/5 4/- 4/6
caci square,	3\fin \times 3\fin square newel, framed 3/9 per foot run
2in softwood rebated, moulded and fixed	African mahogany moulded 3in × 2in hand- rail. (Joints below)
fixed	rail. (Joints below)
	Do. wreathed do. (do.)
WINDOWS, hung on lines— Softwood cased frames, 1 in inner and outer linings, 1 in pulley	FIXING ONLY IRONMONGERY To deal To hardwood
stiles, 2in sashes, oak sill. Overall size of frames—	Barrel bolts 1/6 2/3 each
stiles, 2in sashes, oak sill. Per foot super. Window as described	Flush bolts 3/8 4/6 do. Sash fasteners 2/1 2/8 do.
Add if sashes in squares, about	Rim locks and furniture 5/- 6/3 do
2 feet super in each — 1/4½ 1/8½ 1/7½ Extra for hanging sashes with lines, each weights and axle pulleys 27/- 44/6 55/- 74/-	Mortice locks and do
weights and axle pulleys 27/- 44/6 55/- 74/-	Casement fasteners
FINISHINGS TO OPENINGS— Per foot super—	
	Grip handles
Softwood linings, tongued at angles and tongued to frame including grounds \$\frac{1}{2}\text{in lin. 1}\frac{1}{2}\text{in lin. 1}\text{in lin. 1}in li	Mortice locks at 1 do. 10/- 15/6 do. Cupboard locks . 2/7 3/2 do. Casement fasteners . 2/1 2/7 do. Do. stays
Softwood linings, tongued at angles and tongued to frame including grounds \$\frac{1}{2}\text{in lin. 1}\frac{1}{2}\text{in lin. 1}\text{in lin. 1}in li	Cabin hooks
Softwood linings, tongued at angles and tongued to frame including grounds \$\frac{1}{2}\$ in 1in. 1\frac{1}{2}\$ in 2 in 1in. 1\frac{1}{2}\$ in 1in. 11	Cabin hooks 1/8 2/3 do. Floor springs including oil 44/- 55/- do. Overhead springs 12/8 15/- do. Springhinges 10/- 12/- do.
Softwood linings, tongued at angles and tongued to frame including grounds and backings	Cabin hooks
Softwood linings, tongued at angles and tongued to frame including grounds and backings	Cabin hooks
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Softwood linings, tongued at angles and tongued to frame including grounds and backings	Cabin hooks
Softwood linings, tongued at angles and tongued to frame including grounds \$\frac{1}{2}\$ in 1in. \$1\frac{1}{2}\$ in 1 \$\frac{1}{2}\$ in 1 \$\frac{1}{	Cabin hooks
Softwood linings, tongued at angles and tongued to frame including grounds \$\frac{1}{2}\$ in 1in. \$1\frac{1}{2}\$ in 1 \frac{1}{2}\$ in 1 \fr	Cabin hooks
Softwood linings, tongued at angles and tongued to frame including grounds \$\frac{1}{2}\$ in 1in. \$1\frac{1}{2}\$ in 1 \$\frac{1}{2}\$ in 1 \$\frac{1}{	Cabin hooks
Softwood linings, tongued at angles and tongued to frame including grounds and backings	Cabin hooks
Softwood linings, tongued at angles and tongued to frame including grounds and backings	Cabin hooks
Softwood linings, tongued at angles and tongued to frame including grounds in lin. 1½ in 1½ in 1½ in and backings	Cabin hooks
Softwood linings, tongued at angles and tongued to frame including grounds and backings	Cabin hooks
Softwood linings, tongued at angles and tongued to frame including grounds \$\frac{1}{2}\$ in \$1\$ in. \$1\frac{1}{2}\$ in. \$1\$ in. \$1\frac{1}{2}\$ in. \$2\$ in.	Cabin hooks Floor springs including oil 44/- 55/- do. Overhead springs 12/8 15/- do. Overhead springs 12/8 15/- do. Springhinges 10/- 12/- do. SMITH AND FOUNDER Basis framed steel joists and hoist and fix 70/- per cwt. Do. but in compound girders 74/- do. Do. but in stanchions 84/- do. Trusses 74/- do. Additional cost per cwt. over basic sections for following R.S.J.s 9in × 7in 3½d. per cwt. 6in × 3in 4½d per cwt. 5in × 3in, 10in × 8in, 12in × 8in, 14in × 8in, 16in × 8in, 18in × 6in, 18in × 7in, 20in × 6½in, 20in × 7¼in 10d. do. 5in × 2½in, 22in × 7¼in 10d. do. 5in × 2½in, 22in × 7¼in 11/½ do. 3in × 1¼in 21/9 do. 3in × 1¼in 21/9 do. 3in × 1¼in 11/4 cwt. 4¼in × 1¼in 21/9 do. 3in × 1¼in 11/4 cwt. 4¼in × 1¼in 155/- do. Forged straps 108/- do. Wrot iron balustrade 130/- do. RAINWATER GOODS— Round cast-iron pipe with socketed joints caulked with red lead and tow and fixing with pipe nails and gas barrel distance pieces to plugs in brickwork 2in 3/4 3/10 5/- Extra for shoes 2in charles 4/11 6/2 8/14 Do. junctions do. 7/3 9/3 13/5 Do. bends do. 5/8 7/3 9/4
Softwood linings, tongued at angles and tongued to frame including grounds and backings	Cabin hooks
Softwood linings, tongued at angles and tongued to frame including grounds \$\frac{1}{2}\$ in \$1\$ in. \$1\frac{1}{2}\$ in \$2\$ in.	Cabin hooks
Softwood linings, tongued at angles and tongued to frame including grounds and backings	Cabin hooks

MEASURED RATES-Continued

PLUMBER EXTERNAL—		Soak	e r s	Flats	Filos	hings
4lb Milled Sheet lead	per cu	vt. 184	1/-	217/6	2	27/-
LEAD PIPES: running	joints,	etc.	1 in	Llin	11in	2in
Per foot run	5/1	‡in 7/2	10/-	1‡in 12/9	16/3	22/1
Complete milely	4/6	6/3	8/3	10/3	13/9	17/7
Waste hooks	3/1	4/3	5/7	6/11		11/5
		-8/3	3/1	1/9	3/-	8/-
Bends each	7/10	9/4	11/1	12/11		19/10
Joints ,,		4 - 1 -	21/1	28/1		19/19
Inion and joints ,, stop valve and ditto ,,	28/11	37/7	51/10		_	_
Bib valve and ditto ,,	20/8	28/-	32/10	00/5	-	_
Ball valve and ditto ,,	22/6	31/7	49/5	71/11	_	_
Sleeve and ditto ,,	_	-	-		21/3	28/9
COPPER TUBES						
COTTER TOBES	1 in	#in	lin	11in	1 in	2in
l'ubes per foot run	2/11		4/7	5/3	6/1	8/1
Couplings: straight		-,-		- / -	-/-	-,-
	3/1	3/10		7,5	9/6	12/1
Do Blonds each	40.1-	7/2	10/2	13/8	20/6	28/3
Do. Tees "	7/2	8/4	12/2	16/6	22/3	31/1
Do Cistern ,	4/-	3/34	7/-		12/4	16/2
Stop cocks ,,	23/10	33/6	52/9	93/-	138/-	213/-
BLACK TUBING (Cla		jin ži	in li	n 1}ii	a 1½is	a 2in
fixed with pipe brack	ets	1/0 -		9 9/0	0.1-	
Tubes, per foot run Bends and fix, each Tees and ditto	0.0	1/9 2	1 2/	7 3/3	3/10	5/1
Bends and fix, each		3/10 4	7 5/	7 7/3	8/2	12/8 13/4
lees and ditto				9 7/5	9/-	13/4
rire bends	16.50	1/5 1	/9 1/	10 2/1	2/9	4/1
Coated iron (M) weigh waste fixed with n pieces and molten lea	nt L.C. ails and joint	.C. soil nd dis	and tance	2in 4/8	4in 6/10 i	
Coated iron (M) weigh waste fixed with n pieces and molten lea Extra only for bends Do. junctions and	nt L.C. ails and joint and joints	.C. soil nd dis	and tance	2in 4/8 12/7 14/-	6/10 f 20/9 26/-	
Coated iron (M) weigh waste fixed with n pieces and molten lea Extra only for bends Do. junctions and j Do. cleaning doors	nt L.C ails and id joint and joi joints	.C. soil nd dis	and tance	2in 4/8 12/7 14/- 14/4	6/10 f 20/9 26/-	do.
Coated iron (M) weigh waste fixed with n pieces and molten lea Extra only for bends Do. junctions and Do. cleaning doors Domical wire guards	nt L.C. uails and joint and joints	.C. soil	and tance	2in 4/8 12/7 14/- 14/4 2/6	6/10 f 20/9 26/-	do.
Do. junctions and Do. cleaning doors Domical wire guards	joints		• •	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	do. do. do.
Do. junctions and j Do. cleaning doors Domical wire guards	joints		• •	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	do. do. do.
Do. junctions and j Do. cleaning doors Domical wire guards PLASTERER— Lime and hair	joints		• •	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	do. do. do. do. do.
Do. junctions and Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do.	joints	ender a	and set	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	each do. do. do. do.
Do. junctions and Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do.	joints	ender a	and set	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	each do. do. do.
Do. junctions and Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do.	joints	ender a	and set	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	each do. do. do.
Do. junctions and Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do.	joints	ender a	and set	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	each do. do. do.
Do. junctions and Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do.	joints	ender a	and set	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	each do. do. do.
Do. junctions and Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do.	joints	ender a	and set	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	each do. do. do.
Do. junctions and Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do.	joints	ender a	and set	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	each do. do. do.
Do. junctions and Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do.	joints	ender a	and set	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	each do. do. do.
Do. junctions and Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do.	joints	ender a	and set	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	each do. do. do.
Do. junctions and Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do.	joints	ender a	and set	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	each do. do. do.
Do. junctions and Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do.	joints	ender a	and set	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	each do. do. do.
Do. junctions and Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do.	joints	ender a	and set	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	each do. do. do. do.
Do. junctions and Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do.	joints	ender a	and set	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	each do. do. do.
Do. junctions and Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do.	joints	ender a	and set	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	each do. do. do.
Do. junctions and Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do.	joints	ender a	and set	14/- 14/4 2/6	6/10 f 20/9 26/- 15/8 2/9	each do. do. do.
Do. junctions and j Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do. Sirapite Do. Do. Portland Do. Do. Keenes Dubbing Metal lathing 6" × 6" × ½" Earther quantity, white, and Rounded edge. Extra Angles in ditto Cutting and fitting. Aro Narrow widths. 3" to Ditto. 6" to Sundry labours per	R R P R R R R R R R R R R R R R R R R R	ender a bitto flo kimmin ender a ender fa acking i lain face loor ser kimmin 'hick or resh × 2 Plain C (on press st	and set at and g coat and set loat and coat e e ed less 4 Gaug Glazed epared 4 dilps 1, Add 7 dd 40	14/- 14/4 2/6 set d ditto Tiles, screed) i. per fil. 5% to % to	6/10 if 20/9 226/-15/8 2/9 yar	each do.
Do. junctions and job cleaning doors Domical wire guards PLASTERER— Lime and hair Do. Sirapite Do. Do. Portland Do. Do. Reenes Dubbing Metal lathing 6" × 6" × 4" Earther quantity, white, and Rounded edge. Extra Angles in ditto Cutting and fitting. Aro Narrow widths. 3" to Ditto. 6" to Sundry labours per Quirk 24d. Arris 34	R R P R R R R R R R R R R R R R R R R R	ender a bitto flo kimmin ender a ender fa acking flain face loor ser kimmin 'hick or resh × 2 Plain C (on press st	and set at and g coat and set loat and coat e eed less 4 Gaug Glazed epared epared epared 1 Add 7 dd 40	14/- 14/4 2/6 set d ditto Tiles, screed) i. per fil. 5% to % to	6/10 if 20/9 226/-15/8 2/9 yar	each do.
Do. junctions and j Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do. Sirapite Do. Do. Portland Do. Do. Reenes Dubbing Metal lathing 6° × 6° × 4° Earther quantity, white, and Rounded edge. Extra Angles in ditto Cutting and fitting. Aro Narrow widths. 3° to Ditto. 6° to Sundry labours per Quirk 2½d. Arris 3½ Flush bead 1/5.	R R R R R R R R R R R R R R R R R R R	ender a bitto floo kimmin ender a cender f acking i lain face lloor ser kimmin hick or nesh × 2 Plain ((on press to vide. A tto. A near:— ir edge	and set at and g coat and set loat and coat e eed less 4 Gaug Glazed epared epared epared 1 Add 7 dd 40	14/- 14/4 2/6 set d ditto Tiles, screed) i. per fil. 5% to % to	6/10 if 20/9 226/-15/8 2/9 yar	each do.
Do. junctions and j Do. cleaning doors Domical wire guards PLASTERER— Lime and hair Do. Sirapite Do. Do. Portland Do. Do. Keenes Dubbing Metal lathing 6" × 6" × 4" Earther quantity, white, and Rounded edge. Extra Angles in ditto Cutting and fitting. Aro Narrow widths. 3" to Ditto. 6" to Sundry labours per Quirk 2\frac{1}{2}d. Arris 3\frac{1}{2}Flush bead 1/5. Mouldings—5d. per in	and pionts 2" R D 3" R R 4" R R 4" R R 4" R R 4" S 4" T T mware setting over la 1.2" di foot li d. Fa girt	ender a bitto floo kimmin ender a ender fa acking i lain face loor scr kimmin 'hick or resh × 2 Plain ((on press pes or covide. A tto. A near:— ir edge	and set at and g coat and set loat and coat e eed less 4 Gaug Glazed epared epared epared 1 Add 7 dd 40	14/- 14/4 2/6 set d ditto Tiles, screed) i. per fil. 5% to % to	6/10 if 20/9 226/-15/8 2/9 yar	each do.
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Staining and wax po OLD WORK—		/1	9d.		
Cleaning down old	work and	repolish	1	1-	-
Stripping, preparing		9	1/11		
INTERNAL PAINT With white lead base		on colour	s, with b	rusho	es.
	Knot stop and	Prime and paint	Prime and paint	1	Add for each extra
ON WOOD— General surfaces	prime 2/51	once 4/9	twice 6/6	1/91	coat Yard super

Running lengths not				
exceeding 3" wide 31d.	74.	91d.	234.	Yard run
Do. 3" to 6" wide 5d.		1/01d.		do.
Do. 6" to 9" wide 71d.	1/21	1/71	6d.	do.
Do. 9" to 12" wide 101d.		2/1	7d.	do.
Sash square each side 5/-	8.9	11/6		per doz.
Do. in large squares 7/3				do.
Opening edges 7d.		1/9		each
Casement frames	A / Ad	*/>	100.	Cacii
	81d.	1/-	3d.	Yard run
Mullions or tran-				
soms, do 6\d.	$11\frac{1}{2}d$	1/3	$4 \nmid d$.	do.
ON PLASTER—	One	Two	Three	
	coat	coats	coats	
Paint on surfaces	2/7	4/11	6/8	Per Yard
				super
Do. on mouldings	3/-	5/6	7/4	do.
Do. on enrichment	4/7	8/8		
ON STEEL-				
Paint on structural steel	2/-	3/10	5/5	do.
Do. on roof trusses	3/4	6.6	8/11	
Do. on metal windows measured over all on both	-	0,0	0,11	ao,
sides, divided into squares	3/1	5/3	7/5	do.
Do. divided into large				
squares	2/7	4/6	5/10	do.
Do. divided into extra				
large squares	2/21			do.
Do. on opening edges	91d.	1/5		each
Do. on opening edges Do. on rain water pipe	9d.	1/6		Yard run
Do. on do. gutter	1/2	2/6		do.
Do. on small pipe	3d.	6d.	9d.	do.

	Glass ordinary su		
	ollowing sizes, glaze		Per foot super
In plates not	exceeding 2 feet sup	er in each	4/10
Do.	5 feet	do	5/8
Do.	45 feet	do	
Do.	100 feet		6/9
Add extra price foot super.	for glazing with	screw beads	or clips 3d. per

SHEET GLASS, glazed work:	,	Jacet,	24 oz		32 oz
Ordinary quality clear	glaze	to l	-		
wood with putty in a feet super in the aggre	reas of	100	1/91	1/112	2/24
Do. 200 feet do			1/8	1/10	2/1
Do. 500 feet do			1/6}	1/84	1/113
Figured rolled and Cat 100 foot super areas in	hedral,	glaze	ed to w	ood with	putty in
D. f L. L. L.				t super	1/111
Do in standard tints),	2/71
Fluted, glazed do).	2/41
Reeded (narrow, broad,		0	de).	2/4
Reedlyte do			de).	2/4
Spotlyte do			de).	2/3
in. Rough cast do.			do).	2/21
lin Do. wired do			de),	2/6
in Georgian Rough Ca	er do		de).	2/51
Im Ocorkian Rough Ca					

in Georgian Rough Cast de Add for glazing all as befor above, 2d. per superficial for	o. re	but to	do. steel to	similar	2/5} work as
PAINTER AND DECORA DISTEMPERING—In comm	non	colour	rs, put or	n with b	rushes—
ON PREPARED SURFAC			2	421:0	
per yard super-		1 coat	2 coats	Add if	required or
	((finish)	(under- coat	Sealing	Stipp- ling
Ordinary distemper on	flat	a	nd finish)	
surface of plaster Washable do, on do.	of	8d.	1/3	5 ½ d.	2d.
plaster	ow.	10\d.	1/81	5d.	2d.
widths or panels		30%	30%	20%	50%
Add if on mouldings					-
Add if on enrichments		160%	160%	115%	-

PAPERHAN Hanging only-		Per Pie	ece—1	Lining	Pattern
On walls	 	 		6/6	7/9
On stairs	 	 		8/10	10/4
On ceilings	 	 		7/9	9/1



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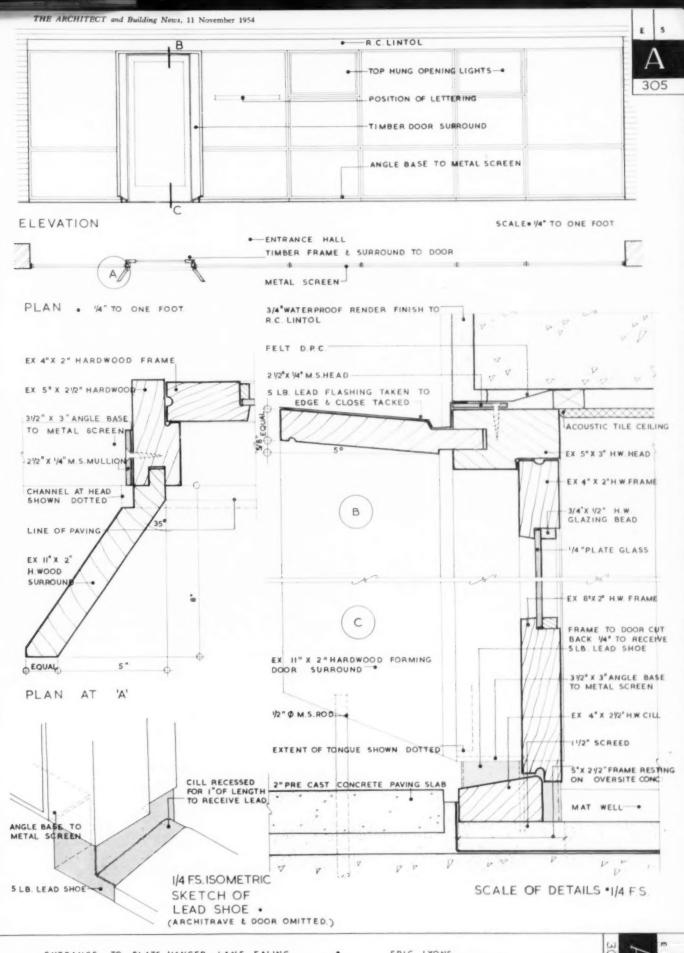
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Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the

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• NEWS •

OPEN

BUILDING

AUDENSHAW U.C. (a) 56 houses, St. Anne's Road Housing Scheme. (b) Clerk of the Council, Council Offices, Ryecroft Hall. (e) Nov. 20.

BECKENHAM B.C. (a) Single-storey building comprising dressing rooms and public lavatories, "Harvington," South Eden Park Road. (b) Borough Engineer, Town Hall, . (c) £2. (e) Nov. 29.

BOGNOR REGIS B.C. (a) Public mortuary, London Road. (b) Engineer and Surveyor, Town Hall. (c) 2gns. (e) Nov. 29.

BUCKS C.C. (a) Secondary school for 300 children, Princes Risborough. (b) County Architect, County Offices, Aylesbury. (c) 5gns. (d) Nov. 12. (e) Jan. 10.

CARDIFF R.C. (a) Erection of one or more of following dwellings, etc.: (1) 8 dwellings, Penmark; (2) 6 bungalows, Greenmeadow, Tongwynlais; (3) 4 houses, Llantrithyd; (4) construction of site works including a lay-by and small sewage disposal works, Llantrithyd. (b) Engineer and Surveyor, 20, Park Place. (c) 3gns each contract. (e) Nov. 22.

CARDIFF C.C. (a) New County Secondary School for Boys, Heol Hir, Llanishen. (b) City Surveyor, City Hall. (c) 2gns. (e) Dec. 3.

CHELMSFORD R.C. (a) 81 houses, carrying our roadworks, etc., Burnthouse Lane, Ingatestone. (b) Council's Estates Manager, Council House, New London Road. (c) £2. (e) Nov. 30.

CHISLEHURST AND SIDCUP U.C. (a) (1) a block of 24 2-storey flats, Elmstead Lane, Chislehurst; and/or (2) a block of 10 2-storey flats, Palm Avenue, Footscray. (b) Clerk of the Council, Council Offices, Sidcup. (c) 2gns. (d) Nov. 18.

CLARE R.C. (a) 4 bungalows and site works, Cowlinge. (b) Engineer and Surveyor, Stonehall, Clare. (c) 2gns. (e) Dec. 3.

COVENTRY C.C. (a) Construction of Civic Theatre. (b) City Architect, Bull Yard. (d) Nov. 20.

CUCKFIELD R.C. (a) 10 dwellings, Pyecombe. (b) Engineer and Surveyor, Rural Council Offices, Boltro Road, Haywards Heath. (c) 2gns. (c) Dec. 13. uddress it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked \star are given in the advertisement section.

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PROVIDENCE WORKS, NORTON STREET, MILES PLATTING, MANCHESTER, 10. DENTON U.C. (a) 44 houses, Dark Lane Farm Housing Site. (b) Engineer and Surveyor, Town Hall. (c) 2gns. (d)

EAST SUSSEX C.C. (a) Erection of Phase 1 of Lewes Technical College. (b) County Architect, County Hall, Lewes. (d) Nov. 15. (e) Dec. 22.

EIRE—DUBLIN C.C. (a) 110 houses and E.S.B. sub-station, Rathfarnham Housing Area. (b) City Treasurer, Exchange Buildings, Lord Edward Street. (c) 15gns. (e) Nov. 23.

EIRE—DUBLIN C.C. (a) Erection of 4 blocks, comprising 124 flats, Hardwicke Street. (b) City Treasurer, Exchange Buildings, Lord Edward Street. (c) 15gns. (e) Nov. 26.

EIRE-CARLOW C.C. (a) 12 cottages, Browneshill Road, Carlow. (b) County Secretary, Athy Road, Carlow. (c) 5gns. (e) Nov. 25.

HOLYWELL U.C. (a) 4 houses with garages attached, Fron Park Road. (b) Engineer and Surveyor, Town Hall. (c) 2gns. (e) Nov. 29.

*LONDON—ISLINGTON B.C. (a) 2 8-storey blocks of dwellings, one of which has a 2- and a 4-storey extension, con-taining in all 76 dwellings. (b) Town Clerk, Islington Town Hall, Upper Street, N.1. (c) 3gns. (d) Dec. 4. (e) Jan. 24. See page 42.

LONDON — WANSTEAD AND WOODFORD B.C. (a) 4 houses, High Road, Woodford Bridge. (b) Messrs. Tooley and Foster, Midland Bank Chambers, Buckhurst Hill, Essex. (d) LONDON - WANSTEAD AND

LONDON - WANSTEAD WOODFORD B.C. (a) 60 flats and 9 garages, Chigwell Road, Woodford. (b) Messrs. Tooley and Foster, Midland Bank Chambers, Buckhurst Hill, Essex. Midland (d) Nov. 19.

MACCLESFIELD R.C. (a) 8 houses and 4 bungalows, Woodhouse Lane, Gawsworth. (b) Council's Engineer, 19, King Edward Street. (c) 2gns. (e) Nov. 22.

MONMOUTHSHIRE C.C. (a) Erection of boiler house and heating installation, Pontywaun Grammar School. (b) County Architect, Queen's 2gns. (e) Nov. 15. Queen's Hill, Newport.

NEWMARKET U.C. (a) 32 houses to be built in 2 groups of 12 and 20, Houlds-worth Valley Estate. (b) Council's Architect, Council Offices, Severals House. (c) 2gns. (d) Nov. 12.

NEW SARUM C.C. (a) 34 houses, Primrose Estate, Devizes Road. (b) City Engineer, Council House, Bourne Hill, Salisbury. (c) 2gns. (e) Dec. 1.

NORTHAMPTON C.C. (a) New Eastfield Infants' School, Broadmead Avenue.
(b) Chief Education Officer, Borough Education Office, "Springfield," Cliftonville. (d) Nov. 12.



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NORTH COTSWOLD R.C. (a) 8 houses, Moreton-in-Marsh. (b) Clerk of the Council, Council Offices, Moreton-in-Marsh, Glos. (c) 2gns. (d) Nov. 13.

N. IRELAND—BELFAST. (a) Erection of new voluntary special school, Somerton Road. (b) J. A. Tynan, 68, Royal Avenue. (c) 3gns. (e) Nov. 22.

NORTHERN IRELAND HOSPITALS AUTHORITY. (a) Erection of new geriatric dept., and alterations and additions to existing wards, Belfast City Hospital. (b) Messrs. W. H. Stevens and Sons, 13, Donegal Square North, Belfast. (c) 5gns. (e) Dec. 8.

N. IRELAND—NEWCASTLE. (a) 79 houses with roads and ancillary works, Newcastle, Co. Down. (b) Northern Ireland Housing Trust, Trust Offices, 12, Hope Street, Belfast. (c) £3 (e) Nov. 23.

OXFORDSHIRE C.C. (a) (1) proposed OXFORDSHIRE C.C. (a) (1) proposed secondary school at Watlington—2-form entry. (2) proposed secondary school, South Oxfordshire, Kidmore End—instalment of 3-form entry. (3) proposed extensions to Witley Grammar School—4 classrooms and hall. (b) County Architect, Park End Street Offices, Oxford; instead of the control of immediately.

NORWICH C.C. (a) 80 dwellings and 10 3-storey flats and maisonettes, Shopping Centre, Tuckswood Estate. (b) City Architect, City Hall. (d) Nov. 29.

ST. GERMANS R.C. (a) 8 houses, Church Park, St. Mellion. (b) Council's Surveyor, "St. Germans," Lower Port View, Saltash. (c) 2gns. (e) Dec. 1.

SKIPTON U.C. (a) 24 bungalows, Horse Close Estate. (b) Engineer and Surveyor, Town Hall. (c) 2gns. (e) Nov. 22.

SPILSBY R.C. (a) 6 houses, Old Bolingbroke; 14 dwellings, Stickney. (b) Engineer and Surveyor, Council Offices, Town Hall. (c) 3gns. (e) Nov. 19.

STRATFORD-ON-AVON B.C. (a) Public conveniences with 2 flats, Waterside. (b) Borough Engineer, Municipal Offices. (c) 2gns. (e) Dec. 10.

SUNDERLAND B.C. (a) Police section box and flat, Wheat Sheaf, Sunderland. (b) Borough Architect, Grange House, Stockton Road. (c) 2gns. (e) Dec. 3.

SWANSEA B.C. (a) New science laboratory at Danycraig Secondary Modern School, Swansea. (b) Borough Guildhall. (c) £2. (d)

SWANSEA B.C. (a) New workshops at Technical College. (b) Borough Architect, Guildhall. (c) £5. (d) Nov. 27.

WEST RIDING C.C. (a) Erection of a maintenance unit at County Ambulance Depot, Birkenshaw. (b) County Archi-tect, "Bishopgarth," Westfield Road, Wakefield. (c) 2gns. (d) Nov. 15.

*WARRINGTON. (a) Proposed Orford Park R.C. Primary School, Orford. (b) Messrs. Forshaw, Massey and Greaves, 17, Museum Street. (c) 5gns. (d) Nov. 17. See page 42.

THE ECONOMIC

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PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address,
 (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, of modification of tenders, etc.

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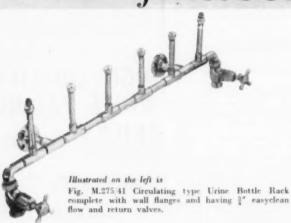
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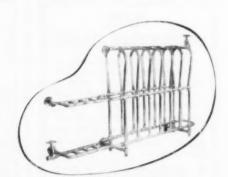


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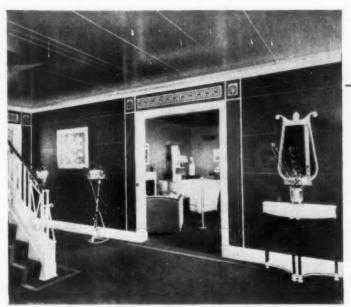
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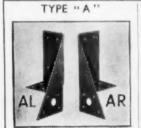
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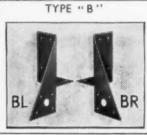


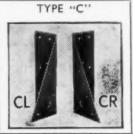
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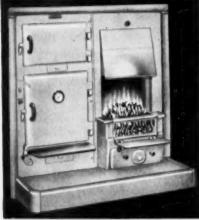
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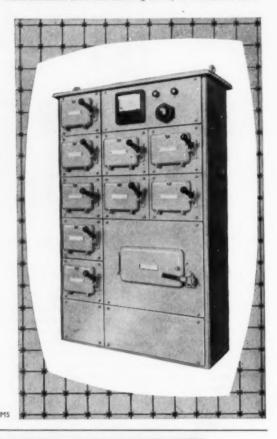
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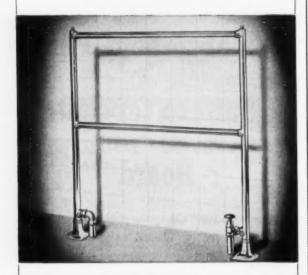
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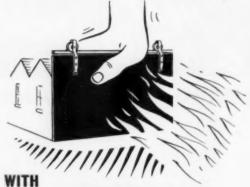
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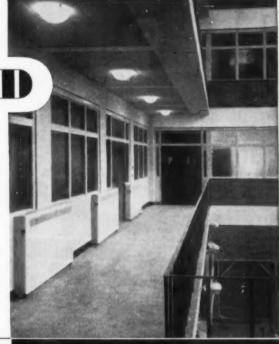
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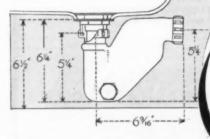
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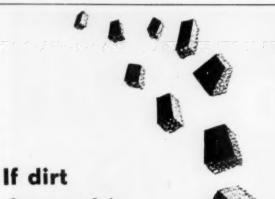
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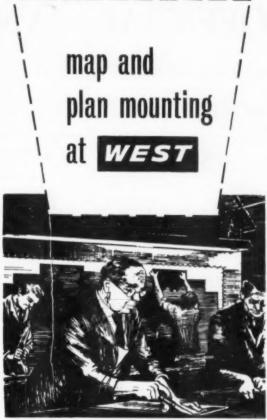


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TENDERS

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APPOINTMENTS

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the em player is excepted from the provisions of Th Notification of Vacancies Order, 1952.

BOROUGH OF WORTHING

APPOINTMENT OF DRAUGHTSMAN

APPLICATIONS are invited for appointment as DRAUGHTSMAN in the Architectural Section of the Borough Engineer's Department at salary in accordance with the General Division grade of the National Scheme of Conditions of Service of Local Government Officers (i.e., salary according to age rising to £470 at age 30 years).

Candidates should be good draughtsmen and should preferably have had some architectural training.

training.

The appointment is subject to the Local Government Superannuation Acts, and to the successful applicant passing satisfactorily a medical examina-

tion.

The appointment will be terminable by one month's notice on either side.

Applications, endorsed "Draughtsman," stating age, particulars of training, experience and qualifications, if any, and accompanied by copies of two recent testimonials, should be sent to the Borough Engineer, Town Hall, Worthing, so as to reach him not later than Friday, November 19, 1954.

ERNEST G. TOWNSEND, Town Clerk

Town Hall, Worthing. 27th October, 1954.

TARVIN RURAL DISTRICT COUNCIL.

ARCHITECTURAL ASSISTANT.

APPLICATIONS are invited for the above

A PPLICATIONS are invited for the above appointment.

Applicants must have had sound training by pupilage and had previous experience in design and construction of building works, particularly in relation to housing.

The salary will be in accordance with Present Grade III of the A.P.T. Division of the National Joint Council, viz.: commencing at £550 per annum. A car will be an advantage for which a travelling allowance in accordance with the Whitley Council Scale for a 8 h.p. car will be made. A house will be made available if required.

Applications, stating age, qualifications and experience, together with copies of three recent testimonials, should be addressed to Mr. Thomas Pritchard, M.I. Mun.E., and enclosed in an envelope endorsed "Architectural Assistant," and should reach this office not later than November 26, 1954.

(Signed) J. H. MOORE DUTTON, Clerk to the Counc

Westminster Buildings, Newgate Street, CHESTER. November 3, 1954.

[8505

SENIOR ARCHITECTURAL ASSISTANTS required by the GOVERNMENT OF SINGA-PORE P.W.D. for one tour of two years in the first instance. Fixed consolidated salary equivalent to £1,800 a year. Gratuity at the rate of £300 a year. Gratuity at the rate of £300 a year. Free passages for officer only. Candidates under 40 years of age must have passed the Intermediate Examination of R.I.B.A. or its equivalent and have had at least seven years' practical experience in an architect's drawing office. They must be rapid and accurate draughtsmen and be fully conversant with modern construction and building materials including reinforced concrete.—Write to the Crown Agents, 4, Mülbank, London, S.W.I. State age, name in block letters, full qualifications and experience and quote M2B/40514/AF [8502]

APPOINTMENTS-contd.

BOROUGH OF OLDBURY.

BOROUGH SURVEYOR'S DEPT .. ARCHITECTS' SECTION.

A PPLICATIONS are invited for the following appointments in the Architects' Section of the Borough Surveyor's Department.

1 CHIEF QUANTITY SURVEYOR-Grade

(b) 1 ASSISTANT ARCHITECT—Grade VII. (c) 2 ASSISTANT ARCHITECTS—Grade VI. (d) 1 ASSISTANT QUANTITY SURVEYOR Grade V.

(e) 1 TECHNICAL ASSISTANT-Grade IV. (f) 1 ARCHITECTURAL ASSISTANT-Grade I.

Candidates for appointment (a) should be quali-fied Quantity Surveyors with a practical knowledge of building contract procedure and experience in the preparation of estimates, bills of quantities, valuations for interim certificates and settling final accounts for all types of local authority building contracts.

accounts for all types of local authority building contracts.

Applicants for appointment (b) should be Associate Members of the R.I.B.A. The Architect appointed will be required to take charge of a clearance area development scheme and previous experience of this type of work is desirable. In addition applicants should have experience in the layout of contemporary housing schemes and the design and construction of municipal houses and multi-storey flats.

Applicants for appointment (c) should be qualified members of the R.I.B.A., with housing and education experience and be capable of administering building contracts.

Appointment (d) applicants should preferably be qualified Quantity Surveyors with practical experience in the preparation of bills of quantities.

Candidates for appointment (e) to be capable of preparing approximate estimates and supervising general maintenance work to schools and public buildings.

For appointment (f) applicants to the good

buildings. For appointment (f) applicants to be good draughtsmen, with experience in the preparation of working drawings and details from preliminary sketches.

of working drawings and details from presumants sketches.

The appointments will be superannuable, subject to the National Conditions of Service and to the selected candidate passing a medical examination. Applications, giving particulars of age, qualifications and experience and the names of two referees should be delivered to the undersigned not later than Monday. November 22, 1954.

Consideration will be given to matried applicants with regard to housing accommodation.

KENNETH PEARCE.

Town Clerk.

Municipal Buildings, OLDBURY

November 5, 1954.

EDINBURGH COLLEGE OF ART.

SCHOOL OF TOWN & COUNTRY PLANNING.

APPLICATIONS are invited for the post of ASSISTANT, GRADE I (full time) on the Teaching Staff of the College. Candidates should be corporate members of the Town Planning Institute and preferably have an additional basic qualification.

Salary scale £690 × £30 × £990.

Application forms and conditions of appointment can be obtained from the Secretary. Edinburgh College of Art, Lauriston Place, Edinburgh, 3, with whom application should be lodged not later than 20th November, 1954.

CONTRACTS

PROPOSED ORFORD PARK R.C. PRIMARY SCHOOL, ORFORD, WARRINGTON, LANCS.

A PPLICATIONS are invited from Builders wishing to tender for the above School. Applications accompanied by a deposit of £5 5s which will be returned on receipt of a bona-fide tender, or on return of Bills of Quantities should be sent to Messra. Forshaw, Massey & Greaves, Chartered Architects, 17, Museum Street, Warrington, not later than November 17, 1954. [8496]

METROPOLITAN BOROUGH OF ISLINGTON.

TENDERS are invited for the erection in Elizabeth Avenue, N.1, of TWO 8-STOREY BLOCKS OF DWELLINGS, one of which has a 2- and a 4-storey extension, containing in all 76

2- and a 4-storey extension, containing in air redwellings.

The 8-storey portions are in box frame reinforced concrete construction and applicants must have had experience in this class of work.

Applications for Bills of Quantities and Tender Forms must be accompanied by a deposit of Three Guineas (cheques made payable to the Islington Borough Council), addressed to the Town Cierk, Islington Town Hall, Upper Street, London, N.1. by December 4, 1954.

Deposits are returnable on receipt of a bona fide tender, or the return of all documents not later than January 19, 1955.

Tenders are to be delivered to the Town Clerk by 10 o'clock, January 24, 1955.

The Council do not bind themselves to accept the lowest or any tender.

H. DIXON CLARK, Town Clerk,

H. DIXON CLARK, Town Clerk Town Hall, N.1. [8501

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ARCHITECTURAL Assistant, R.I.B.A. Intermediate standard, wanted immediately.—G. A. Jellicoe, F.R.I.B.A., 12, Gower Street, W.C.I. Mus. 1783.

FIRST-CLASS draughtsman required with sound knowledge of contemporary construction, interested in details, specifications and schedules. For busy West End office. Pension scheme available.—Box 8959.

A RCHITECTURAL Assistant urgently required for busy, varied and progressive country practice.—Write giving details, age, experience and salary required.—Geoffrey Bazeley & Barbary, 15-16, Alverton, Penzance, Cornwall.

WEST END firm of architects require experienced assistant architect, primarily for site supervision, good working drawings and appreciation of contemporary architecture essential; salary £800-£900, five-day week.—Box 8772. [8474]

ARCHITECTURAL APPOINT-MENTS VACANT—contd.

EXPERIENCED senior assistant with first-class constructional ability required at Welwyn Garden City.—Write, stating experience, salary required, to Louis de Soissons, Peacock, Hodges & Robertson, Midland Bank Chambers, Welwyn Garden City.

Garden City.

A RCHITECTURAL Draughtsman. Applications are invited by a Leeds Company with a substantial business in prefabricated housing and schools for home and over-eas markets. Accurate and neat draughtsmanship will be required of applicants, who should be preferably of Intermediate standard. The work is interesting, varied, and demands imagination, initiative and a contemporary approach to building problems. A man with these qualities, who is prepared to devote some effort to learning the technique of prefabrication, will find ample and progressive scope for their deployment. A pension scheme is in operation.—Reply, stating age, experience and present salary to Messrs. Cawood Wharton & Co., Ltd., Ia, Cavendish Road, Leeds, 1.

SITUATIONS VACANT

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is excepted from the provisions of The Notification of Vacancies Order, 1952.

FREE-LANCE draughtsman wanted for structural engineering detailing in Central London during normal office hours.—Box 8960. [8507

ESTIMATOR/DRAUGHTSMAN required for Engineering Builders' Office in S.E.3.—Details of experience and salary required to Box No. 1149. c/o Whites, Ltd., 72-8, Fleet Street, E.C.4. [8500

SITUATIONS VACANT—contd.

EXPERIENCED person with thorough know-ledge exhibition work urgently required by British Industries Fair, Ltd. Duties will include preparation of working drawings, supervision of contract work, and liaison with Company's Consulting Architect. Salary according to qualifications and experience.—Applications should be in writing and addressed to the General Manager, British Industries Fair, Ltd., Ingersoll House, 9, Kingwway, London, W.C.2. (Covent Garden 1461.) [8498]

London, W.C.2. (Covent Garden 1461.) [8498]

A RCHITECTURAL assistant or building of draughtsman, age up to 35, required for work on industrial buildings. Preference given to candidates with Inter. R.I.B.A. but this is not essential although O.N.C. in building is the minimum acceptable qualification. Applicants should have experience in foundation work, drainage and factory buildings. Permanent position and attractive salary. Assistance with housing given if necessary—Write in confidence to Personnel Manager, Michelin Tyre Co., Ltd., Stoke-on-Trent, Staffs, giving all relevant information. [8504]

SITUATIONS WANTED

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BOOKS, ETC.

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DOMESTIC WATER HEATING

Basic Engineering Principles of Electric and Solid-fuel Installations.

THIS book, by Ronald Grierson, M.I.E.E., M.I.MECH.E., sets out the principles of domestic water heating and provides a critical analysis of current practice in the supply of hot water for domestic purposes.

The author applies sound engineering principles to the design of water heating plant of the solid-fuel/electric type, thereby increasing efficiency and decreasing running costs. He deals mainly with the combination of an electric immersion heater and thermostat with a conventional hot-water storage tank, in conjunction with a coal- or coke-fired dom-

estic water heater, this being arranged either as a "back-boiler" or as an independent unit. A suitably arranged installation of this type does, he contends, dispose of the widespread notion that "electric water heating is convenient but expensive."

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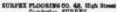


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